KLUANE

NATIONAL PARK & RESERVE OF CANADA

Management Plan

Kluane National Park Management Board

Parks Canada Parcs Canada

Canada

Kluane National Park & Reserve of Canada

Management Plan

April, 2004

PATRIMONIO MONDIAL • WORLD HERITAGE • PATRIMOINE MONDIAL

Canadian
Heritage
Rivers
System

Le Réseau
des rivières
du patrimoine
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Foreword

Canada's national parks, national historic site and national marine conservation areas represent the soul of Canada. They are a central part of who we are and what we are. They are places of magic and wonder and heritage. Each tells its own story. Together they connect Canadians to our roots, to our future and to each other.

What we cherish as part of our national identity, we also recognize as part of our national responsibility. All Canadians share the obligation to preserve and protect Canada's unique cultural and natural heritage. Together, we hold our national parks, national historic sites and national marine conservation areas in trust for the benefit of this and future generations. To achieve this, practical action grounded in long-term thinking is needed.

These principles form the foundations of the new management plan for Kluane National Park and Reserve of Canada. May I offer my deep appreciation to the vast range of thoughtful Canadians who helped forge this plan. I am especially grateful to our very dedicated team from Parks Canada, the Kluane National Park Management Board, the Champagne and the Aishihik First Nations, the Kluane First Nation, and to all those local organizations and individuals who have demonstrated such good will, hard work, spirit of cooperation and extraordinary sense of stewardship.

In the same spirit of partnership and responsibility, I am pleased to approve the Kluane National Park and Reserve of Canada Management Plan

David Anderson

David Anderson
Minister of the Environment

Kluane National Park & Reserve of Canada Management Plan

This plan has been recommended for approval by:

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Kluane National Park Management Board

On behalf of the Champagne and Aishihik First Nations:

Bob Charlie
Chief
Champagne and Aishihik First Nations

Dedication

This management plan is dedicated to the memory of Kathy Kushniruk (1956-2000), a member of the Crow clan of the Champagne and Aishihik First Nations.

During her too brief life, Kathy (Southern Tutchone name Tùtalmä) was both a community educator and cultural leader. Respect, sharing, community and love of the land, the values that represent the wisdom of her ancestors, were reflected in the way Kathy lived and in the goals she pursued. Kathy strongly believed in the importance of the land as a teacher, especially for the community's youth, and as a healer for those who needed direction in their lives.

Sarah Gaunt

At a time when relations between the local First Nations community and the Park were less than ideal, Kathy saw potential in Kluane National Park. She believed it could be a positive force in her community, that it could play a role in cultural and personal strengthening. Looking to the future, Kathy believed the Park could be a place where Southern Tutchone culture, history and values could be learned, shared and expressed.

In 1998, Kathy accepted an appointment to the Kluane National Park Management Board, so that she could begin to bring to life her vision for the Park. While on the Board, she sought ways to include First Nations' traditional knowledge and values with scientific research in park management, and she worked to build bridges between people and groups in the community, in order to make the Board an effective management body.

Kathy's vision for Kluane National Park was not achieved during her lifetime, and much work remains to be done. This management plan makes important first steps toward making Kluane National Park a positive force in the local communities, and achieving Kathy's dream.

Acknowledgements

The preparation of this plan involved many people. Never has such a diverse group applied their efforts to considering the future of Kluane National Park & Reserve. Their input has resulted in a plan that will guide the management of the park for many years to come. A note of thanks is extended to those who devoted their time to this plan. The following deserve special mention:

The Planning Team, with representation from the Kluane National Park Management Board, Champagne and Aishihik First Nations, Kluane First Nation and Parks Canada:

Ken Anderson
Sarah Gaunt
Liz Hofer
Robin Bradasch
Anne Landry
Ron Chambers
Duane West
Kathy Kushniruk
Tom Elliot

The volunteer Recreational Opportunities Working Group spent countless hours providing recommendations on park use and access:

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Caroline Hayes
Bill Parry
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Doug Urquhart facilitator

Other members of the Kluane National Park Management Board involved in the management plan review process:

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Catherine Walton
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Champagne and Aishihik First Nations:

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Don Stone

Kluane First Nation:
Gerald Dickson
Shawn Allen

Yukon government:
Cathryn Paish

David Henry facilitated the development of the first Ecological Integrity Statement for KNP&R.

Behind the scenes there were a number of Parks Canada staff who worked closely on the development of this plan:

Ray Breneman
Doug Clark
Kevin McLaughlin
Bruce Sundbo
Wayne Bourque
Per Nilsen
David Neufeld
Craig McKinnon
Steve Oates
Kim Henkel
Alain Comeau
Ken East

A special thanks to other Parks Canada staff, too numerous to mention, without whose help, interest and patience the plan would not have been developed. Handing this planning process over more to partners and the public has not always been easy for staff, but was approached with openness and professionalism.

Jeanne Chiasson was the primary French translator throughout the plan review.

Artist's note about the graphic images that appear on the chapter title pages:

"Using pre-contact images with some oral history references and trade bead floral designs, I have created these images to give a brief overview of the traditional Tutchone artform."

- Ukjese Van Kampen.

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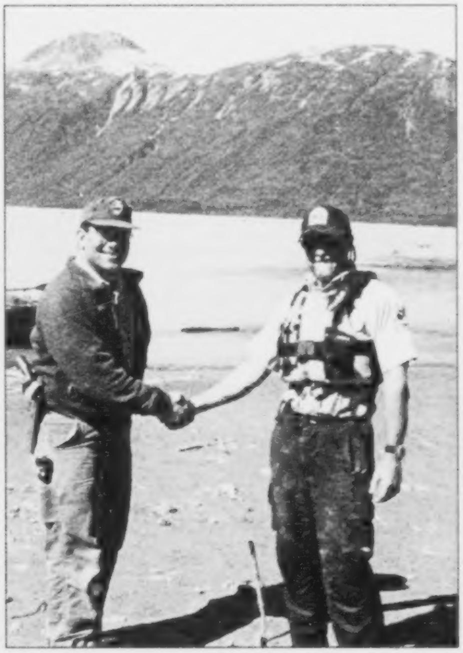
Key Initiatives

KPMB

Assist local First Nations to become reacquainted with the park.


Maureen Abbott

Work with partners in the region to maintain a healthy ecosystem.

Tourism Yukon

Offer a variety of high quality wilderness experiences.

Expand interpretation and outreach programs.

Sarah Gaunt

Strengthen cooperative management.

Increase ecological integrity monitoring.

Identify and protect critical wildlife habitat and movement corridors.

Establish wilderness area declaration for Zone I and II areas of KNP&R.

Introduction

Hiker above Lowell Lake

1.0 INTRODUCTION

> *On behalf of the people of Canada, we protect and present nationally significant examples of Canada's natural and cultural heritage and foster public understanding, appreciation and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations.*
>
> *Parks Canada Mandate*

1.1 Purpose of the Management Plan

The *Canada National Parks Act* requires each national park to have a management plan. These plans reflect the policies and legislation of Parks Canada and comprehensive land claim agreements and are prepared in consultation with Canadians. They are tabled in Parliament and reviewed every five years. This management plan provides long-term strategic direction for the management of Kluane National Park & Reserve of Canada (KNP&R) for the next five years.

This management plan incorporates many initiatives and changes that have taken place since the last management plan was approved in 1990. Since then, the most noteworthy change for the park is the comprehensive land claims negotiations with the Champagne and Aishihik First Nations (CAFN) and the Kluane First Nation (KFN). Significant portions of CAFN and KFN traditional territories are within Kluane National Park & Reserve.

Since the mid 1990s, the concept of Ecological Integrity Statements (EIS) for national parks has developed. For KNP&R, the EIS has been incorporated into the management plan.

The following are examples of key new legislation, policies and reports that were considered in drafting the management plan:

- *Umbrella Final Agreement: Council for Yukon Indians* (1993)
- *Champagne and Aishihik First Nations Final Agreement* (1993)
- *Parks Canada Guiding Principles and Operational Policies* (1994)
- *"Unimpaired for Future Generations"?*, the Report of the Panel on the Ecological Integrity of Canada's National Parks (2000)
- *Action Plan on Ecological Integrity* (2000)
- *Canada National Parks Act* (2000)
- *Parks Canada Guide to Management Planning* (2000)
- Parks Canada and Tourism Industry Association of Canada Accord (2001)
- *Engaging Canadians: Parks Canada's Strategy for External Communications* (2001)
- *Senate Report: Northern Parks – A New Way: A Report of the Senate Subcommittee on Aboriginal Economic Development in Relation to Northern National Parks* (2001)

Parks Canada has strengthened its commitment to preserving park resources in a way that integrates ecological, social and economic values and recognizes the rights of First Nations with regard to park use and management.

1.2 Management Planning Process

Developing this management plan required the significant involvement of partners, stakeholders and individuals with an interest in the park and its future, including First Nations, the Yukon government, communities, the tourism industry and environmental groups. The planning team consisted of representatives from the Kluane National Park Management Board, Champagne and Aishihik First Nations, Kluane First Nation and Parks Canada. The Board coordinated the plan review.

A variety of consultation techniques were used to engage the public during the plan review. Consultation included a series of five newsletters, two rounds of Open Houses in Yukon communities, stakeholder meetings, a student workshop and a local community questionnaire.

Due to interest in the park's recreational opportunities, a volunteer Recreational Opportunities Working Group worked over several months to provide recommendations.

Special emphasis was placed on engaging members of the Champagne and Aishihik First Nations, as this was the first management plan review since the signing of their Final Agreement. Four successful workshops were held with Champagne and Aishihik First Nations members. A questionnaire was conducted and the summary report will provide a solid foundation for further relationship building through implementation of the plan.

1.3 Park Establishment

In 1942, recognizing the impact of the newly constructed Alaska Highway, a Privy Council Order of Canada withdrew over 25,000 km^2 of land lying to the south of the Alaska Highway, west of the Haines Road and east of the White River. In 1943, this area was designated as the Kluane Game Sanctuary, until such time as the *National Parks Act* could be amended to include and establish Kluane National Park.

In 1972, over 22,000 km^2 of the Kluane Game Sanctuary was set aside as a national park. Official proclamation of Kluane National Park Reserve took place in 1976, pending the outcome of comprehensive land claims.

In 1993, the *Champagne and Aishihik First Nations Final Agreement* was signed by the government of Canada, the Champagne and Aishihik First Nations and the government of Yukon. This agreement established approximately 5,900 km^2 of the southeastern portion of the park reserve as Kluane National Park.

The northwestern portion of the park reserve lies within the traditional territory of the Kluane First Nation. These lands will remain as park reserve until their Final Agreement is signed and provisions concerning the park reserve status are fulfilled. The *Canada National Parks Act* will then be amended and this management plan may be reviewed.

For ease of reading, the word "park" and the acronym "KNP&R" are used throughout the management plan and refer to both the park and park reserve.

1.4 Park Purpose and Objectives

The purpose of Kluane National Park & Reserve of Canada is:

To protect for all time, and to present to the public, a natural area of Canadian significance representative of the Northern Coast Mountains Natural Region.

The characteristics that help define this part of the Northern Coast Mountains Natural Region and provide values for protection and celebration include:

- The St. Elias Mountains, with many of Canada's highest mountains, including Mount Logan, Canada's highest peak at 5,959 m;
- one of the largest non-polar icefields in the world, with immense valley glaciers and wild rivers – a vestige of the last Ice Age;
- one of the most genetically diverse populations of grizzly bears in North America, the largest concentration of Dall's sheep in the world and one of few populations of land-locked Kokanee salmon;

- an ecological crossroads of Pacific Ocean influences, the Arctic and the boreal forest resulting in diverse vegetation communities;
- local First Nations with strong ties to the land and commitment to maintaining this aspect of their culture;
- significant cultural resources, including an ancient obsidian quarry site, heritage trails and aboriginal place names; and
- wilderness character that provides opportunities for visitors to experience beauty, quiet, solitude, and wildlife in their natural setting.

The *Champagne and Aishihik First Nations Final Agreement* (Chapter 10, Schedule A, 1.0) states the following objectives for the park:

- to recognize Champagne and Aishihik First Nations history and culture, and the rights provided for in this schedule, in the establishment and operation of the park;
- to recognize and protect the traditional and current use of the park by Champagne and Aishihik people in the development and management of the park;
- to protect for all time a representative natural area of Canadian significance in the Northern Coast Mountains Natural Region;
- to encourage public understanding, appreciation and enjoyment of the park in a manner that leaves it unimpaired for future generations;
- to provide economic opportunities to Champagne and Aishihik people in the development, operation and management of the park;
- to recognize that oral history is a valid and relevant form of research for establishing the historical significance of heritage sites and moveable heritage resources in the park directly related to the history of Champagne and Aishihik people; and
- to recognize the interest of Champagne and Aishihik people in the interpretation of aboriginal place names and heritage resources in the park directly related to the culture of Champagne and Aishihik people.

1.5 Cooperative Management

The *Champagne and Aishihik First Nations Final Agreement* ushered in a new era in the management of Kluane National Park. The *Final Agreement*, which came into affect in 1995, identifies specific rights and responsibilities of the Kluane National Park Management Board (the Board), Champagne and Aishihik First Nations and Parks Canada in the management of the park – a cooperative management regime based on shared responsibility. The Board was established in 1995 and work of its members currently relates to the national park, not the park reserve (see Section 1.3 for explanation), as the Board was created from the *Champagne and Aishihik First Nations Final Agreement*. It is anticipated that provisions for the expansion of the Board will form part of the pending *Kluane First Nation Final Agreement*.

The Board consists of four voting members; two are nominees of CAFN and two are nominees of the Government of Canada. All are appointed by the Minister responsible for Parks Canada. Kluane National Park is represented by the park superintendent, a non-voting member. The Board provides a vehicle for public involvement in park management and may make recommendations to the Minister on any matters related to management or development in the park. The role and responsibilities of the Board will continue to evolve and mature over time.

Champagne and Aishihik First Nations also has certain authority and responsibilities related to the management of the park that affect the rights and interests of CAFN. For these reasons, the management of the park requires a sound and effective government-to-government relationship between Parks Canada and CAFN. There are matters affecting park management that will require their joint attention on a regular basis.

The *Champagne and Aishihik First Nations Final Agreement* provides the framework for a cooperative approach to managing the park; however, only by assuming specific responsibilities, as the Board and CAFN did in the preparation of the management plan, will the full potential of cooperative management be realized.

1.6 Ecosystem-Based Management

One of the key challenges for national parks is maintaining a healthy environment and protecting important cultural resources while supporting quality visitor experiences and contributing to social and economic needs. To address this challenge, Parks Canada has adopted a system known as *ecosystem-based management*.

Ecosystem-based management is a holistic approach that involves working with others to achieve common goals. Productive, positive, long-term relationships are the key to its success. Multi-disciplinary in nature, it seeks to integrate biological, physical, cultural and social information and perspectives. The goal is a healthy park–environmentally and culturally within a broader socio-economic context.

The following components provide the foundation for ecosystem-based management:

- Ecosystems extend beyond park boundaries, and activities on neighbouring lands affect the park's wildlife, water and vegetation. Similarly, park activities affect park neighbours. Integrated management is essential.
- People are a fundamental part of the ecosystem. Addressing people's social and economic needs makes it possible for them to contribute to a healthy environment. Inside the park, these needs must be considered in the context of protecting ecological and cultural heritage. Outside the park, Parks Canada will encourage activities that incorporate heritage values.
- Understanding the relationship between people and the environment is the foundation of good decisions. Inspiration and understanding are derived from the human-land relationship of local First Nations.
- Natural processes are important for maintaining and restoring ecosystems.
- Visitor use respects the importance of protecting ecological and cultural resources. Parks Canada must carefully manage development and visitor use and set limits as needed.
- Decisions are based on sound ecological, cultural and social information.
- Consulting with visitors, local communities, businesses and other governments and agencies is a key component in protecting ecological integrity and cultural heritage.
- Educational programs for visitors and communities create an awareness of ecosystems, the challenges in protecting them, and the role people can play in meeting those challenges.

The management plan is founded on these ecosystem management components. While individual sections address different issues, the actions in each section are linked. Collectively, they represent an integrated approach that Parks Canada believes will ensure that Kluane National Park & Reserve continues as a living example of national park values.

Planning Context

Grizzly bear and hiker foot prints

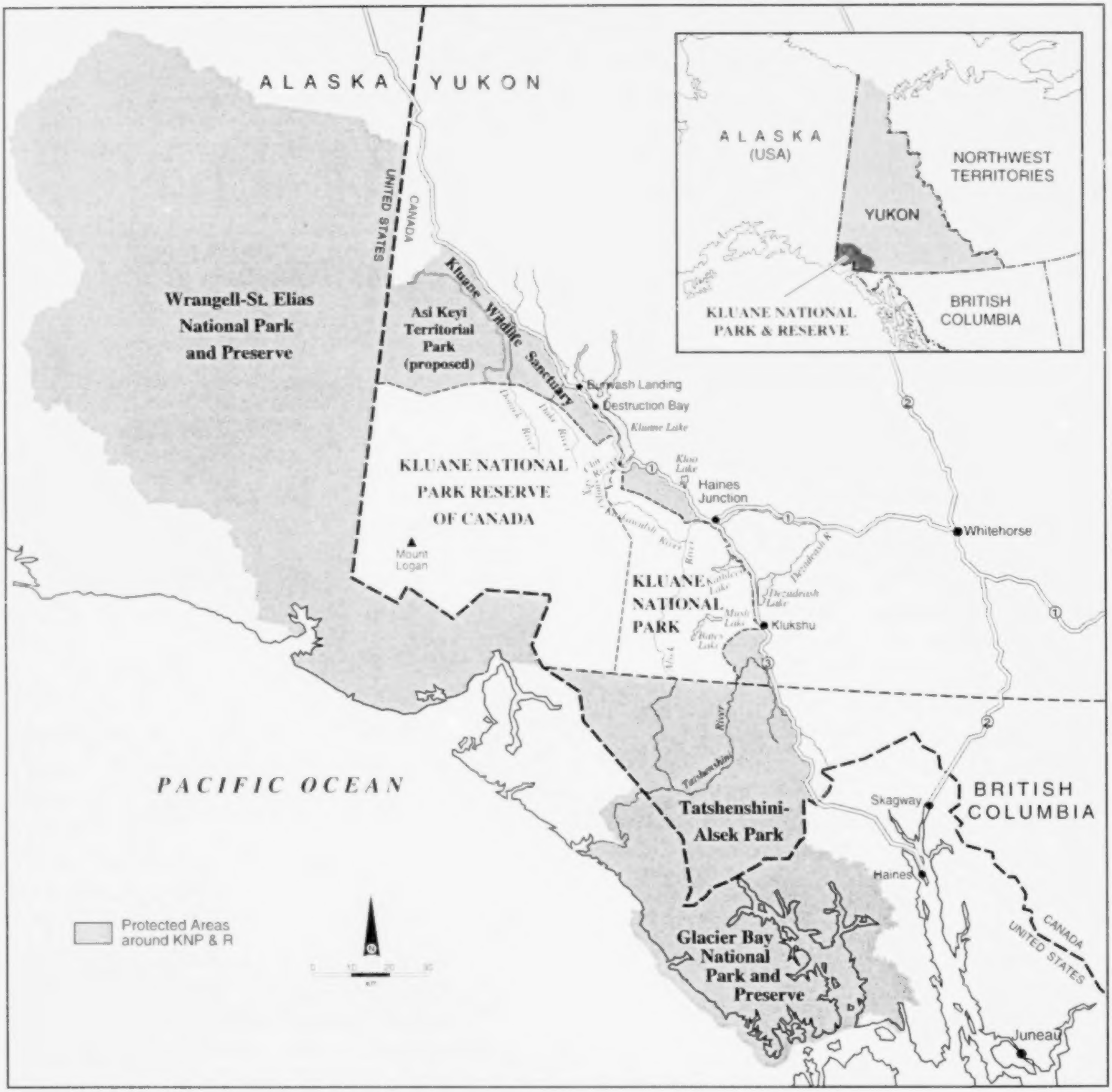
Carol MacRae

2.0 PLANNING CONTEXT

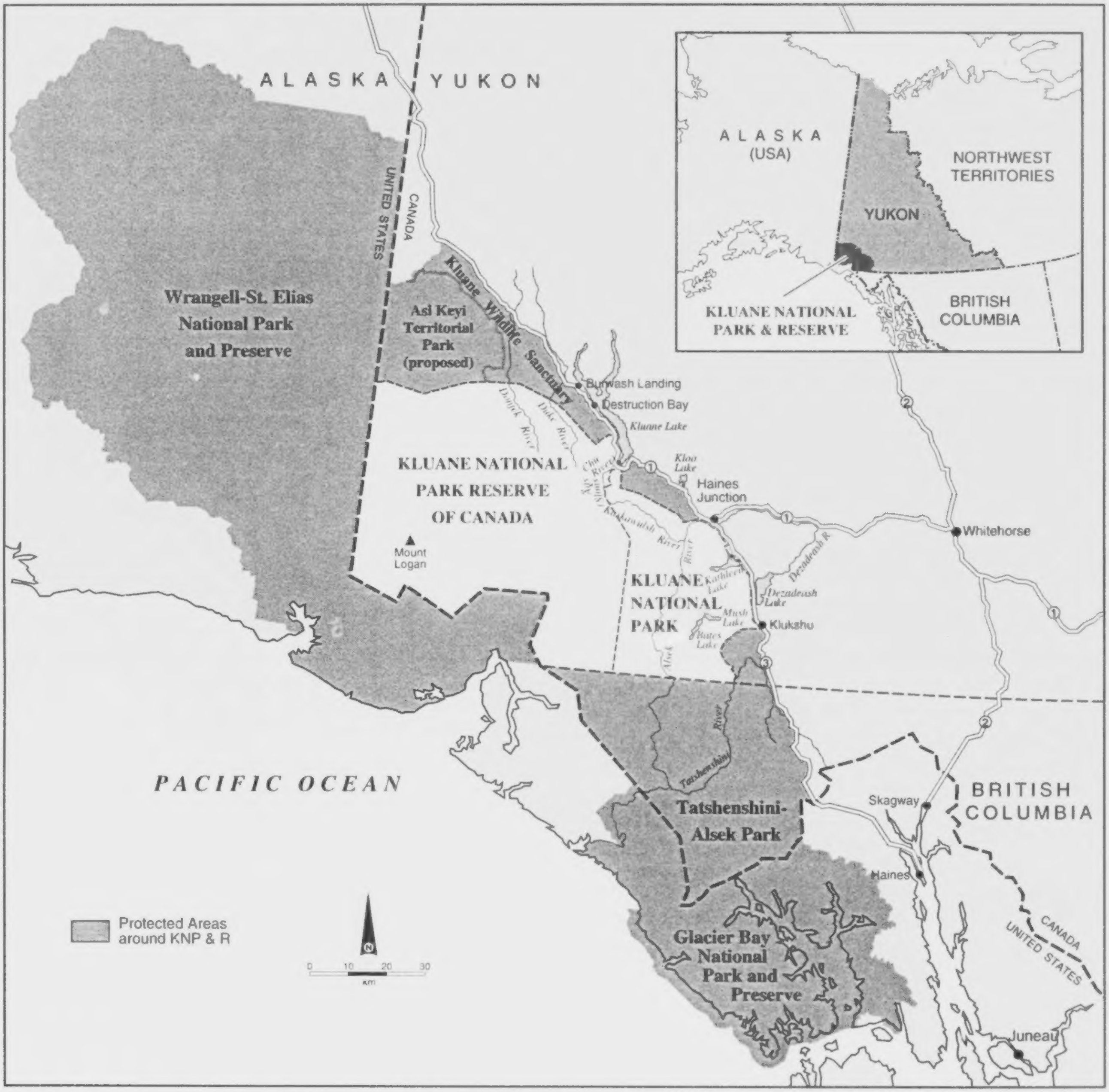
2.1 Regional Context

Kluane National Park & Reserve lies in the southwest corner of the Yukon, a vast mountain area that is part of the traditional territory of the Champagne and Aishihik First Nations and the Kluane First Nation. Four contiguous national and provincial parks straddle the international border and protect different regions of the St. Elias Mountains (Map 1). These protected areas are Kluane National Park & Reserve (21,980 km^2), Tatshenshini–Alsek Park in northwestern British Columbia (9,580 km^2), Wrangell–St. Elias National Park and Preserve in southeastern Alaska (52,600 km^2) and Glacier Bay National Park and Preserve in the panhandle region of Alaska (13,360 km^2).

Map 1. Regional Setting and Protected Areas


ALASKA
YUKON
UNITED STATES
CANADA
Wrangell-St. Elias National Park and Preserve
Asi Keyi Territorial Park (proposed)
Kluane Wildlife Sanctuary
Burwash Landing
Destruction Bay
Kluane Lake
KLUANE NATIONAL PARK RESERVE OF CANADA
Mount Logan
Haines Junction
Whitehorse
KLUANE NATIONAL PARK
Klukshu
Tatshenshini River
Tatshenshini-Alsek Park
PACIFIC OCEAN
BRITISH COLUMBIA
Skagway
Haines
Glacier Bay National Park and Preserve
Juneau
Protected Areas around KNP & R
ALASKA (USA)
NORTHWEST TERRITORIES
YUKON
BRITISH COLUMBIA
KLUANE NATIONAL PARK & RESERVE

Map 1. Regional Setting and Protected Areas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Burwash Landing
Destruction Bay
Kluane Lake
Donjek River
Duke River
Slims River
Kloo Lake
Haines Junction
Kaskawulsh River
Dezadeash R.
Whitehorse
1
2
3
KLUANE NATIONAL PARK RESERVE OF CANADA
Mount Logan
KLUANE NATIONAL PARK
Kathleen Lake
Dezadeash Lake
Mush Lake
Bates Lake
Klukshu
Alsek River
Tatshenshini River
PACIFIC OCEAN
Tatshenshini-Alsek Park
Skagway
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BRITISH COLUMBIA
Glacier Bay National Park and Preserve
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BRITISH COLUMBIA
KLUANE NATIONAL PARK & RESERVE

Together these four parks constitute the largest recognized international protected area in the world. Kluane National Park & Reserve and Wrangell–St. Elias were proclaimed a World Heritage Site in 1979, Glacier Bay named in 1993 and Tatshenshini–Alsek in 1994. In 1986, the Alsek River (Yukon portion) was designated a Canadian Heritage River, and in 1998 the Tatshenshini River (Yukon portion) was nominated for designation.

In December 1998, A Protected Areas Strategy for the Yukon was completed by the Yukon government. Kluane National Park & Reserve falls within four Yukon ecoregions; the park provides adequate representation of two ecoregions (Mount Logan and St. Elias Mountains) and some representation of two other ecoregions (Yukon Stikine Highlands and Ruby Range).

Local Communities

The village of Haines Junction (population 857) is located at the intersection of the Alaska Highway and the Haines Road just outside the park boundary. Haines Junction houses the park administrative headquarters as well as the main visitor reception centre. Other communities adjacent to the park include Klukshu Village, Destruction Bay, Burwash Landing and Beaver Creek. The Haines Road runs 256 km south over the scenic Chilkat Pass to Haines, Alaska (approximate population 1500), a port of the Alaska Marine Highway that connects Alaska with the southern 48 states.

Developments in the Region

Upgrading of the Haines and Alaska highways will occur during the life of this plan. The last section of the Alaska Highway to be reconstructed will be the section along Łù'àn Mān/Kluane Lake that forms the boundary of the park between Congdon Creek and the Ä'ạ̈y Chù (Slims River Valley). The project's most significant implications for the park are in the Tachäl Dhäl (Sheep Mountain) area. Studies are being done to determine routing options and how effects on the environment, cultural resources and visitor experience will be mitigated.

A right-of-way for a natural gas pipeline runs parallel to the Alaska Highway adjacent to Kluane National Park & Reserve. An extensive environmental review was done in the 1970s in anticipation of pipeline construction, but the project did not proceed. The economic conditions to support the construction of a pipeline may have returned; planning and further environmental review will probably occur during the life of this plan. Further development of the Shakwak Valley as a major transportation and energy corridor, and the subsequent implications for the ecological integrity of KNP&R, highlight the need to consider the impacts of regional land use decisions on park values.

2.2 Land Use History

First Nation Connection to Place

Human land use in the southwestern Yukon reflects the climatic changes following the receding of the Ice Age glaciers ten thousand years ago, the related ecological responses and the social, cultural and economic demands of people, both aboriginal and newcomer, upon the resources of these lands.

The park area lay on the western edge of the Beringia refugium, though it was probably under glacial ice through most of the Pleistocene. It appears likely that the earliest people in the region lived in a tundra environment that shifted over time to boreal forest. The onset of warmer, drier conditions, about 8,500 years ago, led to the spread of grassland and a shift in large game resources. Sites discovered in and around the region from this period appear to have functioned as small camps for hunting bison. About 4,500 to 5,000 years ago, small hunting and fishing campsites suggest a broader range of resources were being harvested, while larger seasonal sites suggest a growing regional population and the development of communal hunting, most likely of caribou or mountain sheep. From very early times HooDoo Mountain obsidian (black volcanic glass) was used to make stone tools. This material was an important trade commodity and has been found at sites far beyond the boundaries of the park.

About 2,800 years ago, the climate became cooler and moister. Grasslands gave way to boreal forest, which still prevails today, and the glaciers created a series of ice-impounded lakes in many river valleys, notably those of the Dän Ƶhùr Chù/Donjek and Alsek. About 1,150 years ago the area was blanketed by the White River volcanic ash, from an eruption of a vent now beneath a glacier along the Alaska-Yukon border. Around the time of this major ecological event, a new settlement pattern appeared.

The large gathering sites disappear, replaced by numerous small sites focused on the hunting of small game. It appears there was a seasonal round of activities with hunting, fishing, and gathering over a broad geographic area. This may have been an adaptive shift to the more sparse food resources and harsh conditions of the Neoglacial period. One of the notable characteristics of these late precontact sites in southwest Yukon is the presence of tools made from native copper, most of which was probably obtained in the upper reaches of the White River drainage, northwest of the park. Copper was important in the trade with the people on the Pacific coast.

Regional oral histories and archaeological finds confirm that aboriginal people lived in the area for thousands of years before the arrival of Euro-American explorers, traders and miners. The biologically productive lands and waters east of the St. Elias Mountains provided the Southern Tutchone with a relatively stable supply of food (fish, caribou, moose, Dall's sheep, goat), clothing (hides, fur) and shelter (brush houses, skin tents). Their close association and long-term presence on the land have created an important body of traditional knowledge.

The more recent advance of large glaciers, notably the Lowell and Kaskawulsh, probably altered the harvesting patterns of local First Nations. Several times during the early 19th century, the Lowell Glacier, surging across the Alsek River Valley, led to the impounding of water and the repeated formation of Glacial Lake Alsek. During the early 1800s this lake was nearly 100 metres deep. When the glacial dam broke, a massive volume of water suddenly swept down the Alsek River Valley, destroying fishing villages, campsites and trails. This catastrophic event finds expression in the oral history of First Nation people, both on the coast and in the interior.

When plants began recolonizing the Alsek, Kaskawulsh and Dezadeash river valleys, wildlife found a productive habitat. Brush houses, caches, campsites and trails were built by the Southern Tutchone throughout the greenbelt of the park. A major inter-regional (coast-interior) native trading trail, connecting settlements in the Haines, Alaska area with Łù'àn Mân/Kluane Lake, reflects the importance of the exchange of Southern Tutchone native copper, sinew, hides and skins for coastal cedar baskets, seaweed, shell ornaments and eulachon grease.

Eroding of the Aboriginal Presence

In the 19th century, the Southern Tutchone put more effort into securing furs to trade with their coastal neighbours. After sea otter populations were severely reduced on the coast, coastal people relied on the Southern Tutchone to provide them with furs from the interior. Furs were exchanged for Russian and European trade goods, including axes, knives, traps, guns, pots, kettles, calico fabric, blankets and tobacco. But trading ships visiting the coastal Tlingit also brought new diseases that spread inland. A significant number of First Nation people living in the southerly parts of the Alsek drainage basin are understood to have died of smallpox in the mid-19th century.

Contact with American adventurers and entrepreneurs in the early 1890s brought the establishment of interior trading posts, the transformation of traditional trading trails into wagon roads, the introduction of livestock, and a wider array of manufactured goods and processed food. The Klondike Gold Rush of 1898 had a profound impact on the Southern Tutchone as the Chilkat Pass was promoted and the Dalton Trail used as a route to the Klondike goldfields.

More important was the continuing presence of white miners and traders in the southwest Yukon through the early 20th century. The Kluane Range was prospected, resulting in a brief gold rush. Sheep and Bullion Creeks still retain historical evidence of this period. Mining activity continued intermittently into the 1960s, resulting in a range of operations in the Burwash Uplands and areas of what would become the park. Significant changes to wildlife management regulations were made to support these developments, exacting a toll on Southern Tutchone subsistence use. Mining activities were also important considerations in the debate over the park's boundaries.

Other major events affecting the Southern Tutchone through the 20th century included the construction of the Alaska Highway (1942) and the Haines Road (1943), and the establishment of the Kluane Game Sanctuary (1943) and its subsequent transformation into Kluane National Park Reserve (1976). Highway construction marked the first time the area was serviced by modern land transportation and directly connected to the Outside, and these regularly upgraded roads are still the major transportation corridors of the region. First Nation people were prohibited from hunting, fishing and trapping in the Kluane Game Sanctuary—a part of their traditional territory. The hardships were considerable for the Kluane First Nation people. Developments associated with the National Park Reserve initially focused on the provision of visitor services and the promotion of the regional tourism industry, further compromising First Nation access to traditional ground.

Cooperative Regional Land Use Planning

When the *National Parks Act* was amended in 1976 to include Kluane National Park Reserve, reserve status was applied only until an aboriginal land claim was settled in the region. After this amendment First Nation people were allowed to hunt and fish in the park reserve, but fearing reprisals, few did. Many former Southern Tutchone trails and campsites have fallen into disuse. The 1993 *Champagne and Aishihik First Nations Final Agreement* reaffirmed CAFN traditional gathering, hunting, fishing and trapping rights in the newly designated Kluane National Park. Although these traditional rights have been constitutionally guaranteed with the *Final Agreement*, four generations of Champagne and Aishihik First Nations members have seen their intimate ties with the park eroded and eventually effaced. Since the early 1940s, the same cycle has taken place for the Kluane First Nation. Renewing an intimate relationship with plant and animal communities within the park and traditional cultural sites and resources is a high priority for both the Champagne and Aishihik First Nations and Kluane First Nation. This cultural reintegration will also help ensure the continuity and vibrancy of the aboriginal traditional knowledge of this region.

Newcomers have also been interested in learning about the region. Mountaineering and research on the glaciology of the St. Elias Mountains have been important activities in the area since 1900. Since the 1950s, the Arctic Institute of North America has coordinated scientific research on the region from its station on Kluane Lake. Climate change studies and the recent completion of a ten-year study of the snowshoe hare population cycle in the boreal forest are examples of the important research conducted there. Kluane National Park & Reserve has also become an active player in regional ecosystem research and monitoring. Cooperative work between First Nations, resource management agencies and research communities will guide future human use of the region.

Park Vision

Kathleen Lake

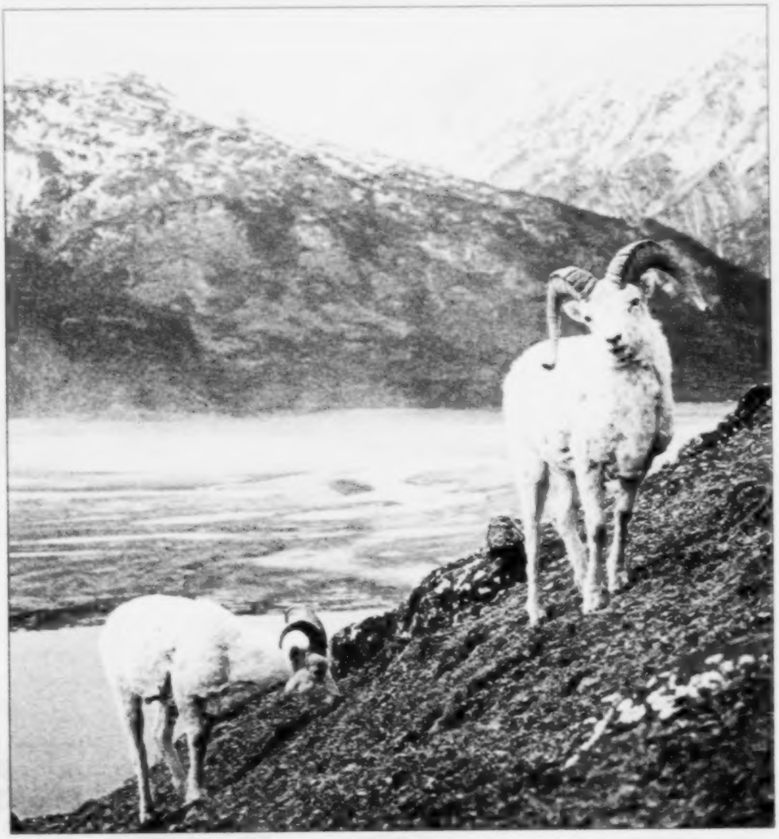
3.0 PARK VISION

The vision statement for Kluane National Park & Reserve describes the desired state of the park in 15 years. Different interests and parties have helped to shape this vision. It is intended to provide a guide for park planning, management and operation.

Park Vision

- The park has at least the same high level of ecological integrity today as it had in 2002, based on the top priority of ecological integrity. Principles of precaution and adaptive management are exercised when there is potential for significant adverse effects on the ecosystem.
- Protection and maintenance of critical habitat and wildlife corridors serve to ensure healthy wildlife populations (e.g. grizzly bears, Dall's sheep, wolves, wolverines, mountain goats and golden eagles).
- Natural processes such as fire, insect outbreaks and floods govern change.
- The enduring cultural relationship between the Southern Tutchone people and the park contributes to the ecological integrity of the regional ecosystem.
- The park is managed on a regional ecosystem basis with the cooperation of Parks Canada, First Nations, Yukon government, local communities and other agencies and groups.
- Cultural resources are documented and interpreted through community-based and scientific research methods. These resources are appropriately managed and their meanings are shared and understood.
- Parks Canada, the Champagne and Aishihik First Nations and Kluane First Nation share in the management of the park.
- Ongoing opportunities are provided to the public to contribute knowledge and ideas to park management and operations. The Kluane National Park Management Board acts as a conduit for local people to participate in park management.
- The local First Nation final agreements related to the park are being implemented, bringing economic and employment benefits to the Champagne and Aishihik First Nations and Kluane First Nation.
- Traditional knowledge and scientific knowledge are given full and fair consideration in the protection, management and operation of the park.
- Through interpretation and outreach programs, the public clearly understands the national significance of the park and supports actions that maintain and enhance ecological integrity.
- Local residents, park visitors and the people of Canada take an active role in protecting and sharing the park's natural and cultural heritage.
- Visitors enjoy a range of appropriate recreational activities that are based on experiencing and respecting the park's wilderness character and its natural and cultural heritage.
- The park plays an important role in the region's heritage tourism that is based on the park's wilderness and cultural values.
- The park is a positive contributor to the local economy, within the context of national park values.
- Part of a World Heritage Site, the park is an important symbol of Canada and of Canadian identity recognized by people from around the world.

A Place for Nature



Fritz Mueller

Dall's Sheep on Tachäl Dhäl (Sheep Mountain)

4.0 A PLACE FOR NATURE

> *"The maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks."*
>
> *Canada National Parks Act, 2000*

Ecological Integrity

Parks Canada defines ecological integrity as: *with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.*

(*Canada National Parks Act*, 2000)

In other words, a national park has ecological integrity if all the plants and animals that should be in the park still thrive there, and people use the park and its surroundings in ways that respect the needs of those plants and animals and allow fires, insect outbreaks, weather and other natural processes to create natural habitat. In the past, Southern Tutchone people were an integral component of the ecosystem.

Ecological integrity is not a static end-point, but rather a continuum of characteristics that a landscape or area should possess. Ecological integrity is measured in terms of:

- ecosystem health, including the ability to evolve, develop and adapt to change;
- biological diversity, including the ecological and evolutionary processes that keep species functioning;
- the ability of plant and animal communities to resist or adapt to stresses and change;
- the ability of plants and animals to sustain healthy populations; and
- the integration of people into the environment in ways that sustain both human quality of life and biological diversity.

Kluane National Park & Reserve

At the heart of Kluane National Park & Reserve are the St. Elias Mountains, among the youngest and largest mountains in North America and some of the largest non-polar ice caps and valley glaciers in the world. These mountains create a barrier between the Pacific Ocean and the plateaus of the Yukon interior, creating a rain shadow in their lee and an arid boreal climate in the eastern and northern parts of Kluane National Park & Reserve. The park area is a vestige of the Ice Age where the winds, dust storms, weather patterns and nutrients generated by icefields and glaciers influence many of the ecological processes of the greater Kluane ecosystem.

The other major mountain range of the park is the Kluane Ranges, bordering the Alaska Highway and Haines Road. Between this mountain range and the Icefield Ranges lies the Duke Depression, a complex of productive montane, subalpine and alpine areas. At present 18 percent of the total park area is vegetated, largely in a narrow greenbelt associated with the Shakwak Trench, Duke Depression and parts of the Kluane Ranges. Ecologically, these are the most productive lands of Kluane National Park & Reserve and are the traditional harvesting areas of First Nations. It was the area's abundant wildlife and rich greenbelt that brought federal government attention to the area. In 1942 the Commissioner of the Yukon recommended that the area be designated a Game Sanctuary until it could be turned into one of Canada's national parks.

The park's population of grizzly bears is a significant wildlife resource. Considered an indicator of ecosystem health in KNP&R, grizzly bears that inhabit the park's glacial valleys have large home ranges and constitute one of the most viable populations of the species found in any Canadian national park. Equally significant is the park's population of Dall's sheep, an ungulate more characteristic of KNP&R's northern areas. Within the past century caribou were present in the region, but some caribou populations have declined and migratory herds no longer move as far south as they once did. A small resident herd of caribou is still found in the Burwash Uplands area, but this herd is among the most endangered caribou in the Yukon. Furbearers such as wolves, coyotes, red foxes, lynx, wolverines and other mustelids continue to inhabit the park and its surrounding areas.

The diversity of habitats, both inside and adjacent to Kluane National Park & Reserve, contributes to a great variety of birdlife. Over 180 species have been reported, including recent increases in trumpeter swans and populations of raptors such as peregrine falcons, gyrfalcons, and bald and golden eagles. The park's lakes and streams contain lake trout, northern pike, arctic grayling and several other fish species. Especially significant are the unique landlocked Kokanee salmon of Sockeye, Louise and Kathleen lakes.

4.1 Environmental Stressors

Kluane National Park and Reserve currently has a high degree of ecological integrity. That said, the park is not free of stress. This section reviews some of the major environmental stresses known or believed to be affecting park ecosystems. Several of these stressors may not currently affect the park, but could be serious concerns in the future. The list below reflects the stressors or threats identified in the 1994 and 1997 *State of the Parks Reports* and the 1999 *State of Protected Heritage Areas Report*. This list was reviewed and augmented in a series of workshops by an interdisciplinary group consisting of members of First Nations, resource managers, wildlife biologists, the Kluane National Park Management Board, local residents, park users and staff. It outlines real and perceived stressors on the park acting at park, regional and global levels. In many cases stressors are interrelated, such as the impact of increased development on the degradation of water quality.

Global Level Stressors

- large-scale effects of global climate change (e.g., rapid wasting of glaciers and the melting of permafrost soils)
- long-range transportation of pollutants and their concentration in cold northern environments

Regional Level Stressors

- habitat fragmentation and loss (e.g., incremental development in the valley bottoms)
- degradation of water quality (e.g., long-term effects of Aishihik Dam, changing land use in the Dezadeash drainage)
- increased development along highways and outside local communities
- forest harvesting, agriculture and mining operations outside the park
- effects from the lack of integrated land use planning (e.g., no forest management plan for the region)
- impacts of wolf management programs
- effects of fire suppression (e.g., disruption of natural forest fire regime)
- effects of hunting outside the park (e.g., harvesting transboundary wildlife populations)

- impacts on wildlife species of solid waste management outside the park
- invasive exotic vegetation (e.g., Anik alfalfa spreading from the Experimental Farm)
- displacement of wildlife (e.g., grizzly bears) by humans
- impacts from the use of snowmobiles and all-terrain vehicles

Park Level Stressors

- impacts of recreational use in the backcountry (e.g., Ä’ą̈y Chù (Slims River) drainage and Alsek River Valley)
- impacts of aircraft flyovers and landings on energy budgets of wildlife
- displacement of regional First Nation people from their traditional lands
- erosion of the traditional knowledge base within regional First Nations
- effects of sport fishing on aquatic ecosystems (e.g., harvest levels in Kathleen Lake)
- impacts from the use of pack animals in the backcountry

The significance of most of these stressors or threats was evaluated through a 1995 *Cumulative Effects Assessment Report*. The report noted that some large mammals and raptors in the park may be significantly influenced by recreational activities. The most significant effects identified were direct mortality, reduction in genetic exchange due to blockage of movement corridors, and behavioural changes due to increased visitation, leading to habitat alienation. The activities having the greatest significance for contributing to overall cumulative effects in the park were identified as internal park use activities such as Alsek River rafting and aircraft support for rafters and hikers. Regional activities having the greatest significance, in order of importance were hunting, mining, highway travel, road proliferation and community growth.

Species of greatest concern were grizzly bears and mountain goats, but Dall's sheep, moose and golden eagles were also of concern. The report concluded that road, trail, aircraft and watercraft use in the Dezadeash, Kaskawulsh, Slims and Donjek river valleys and hunting activities outside the park would probably adversely affect grizzly bear survival through behavioural changes and habitat alienation within the next 5 to 10 years. On a broader level the report indicated that the combined effects of all park and regional activities might result in reduced populations or alienation of critical wildlife habitat during the next 20 years.

The displacement of aboriginal people and their traditional practices from the park area over the last century has led to a breakdown in the creation and the passing on of traditional knowledge. In the past, various restrictions on traditional practices have limited access to lands and activities that are an integral part of the processes necessary for the health and continuity of traditional knowledge. This traditional knowledge is an essential element in the ability to apply meaningful and effective management practices in Kluane National Park & Reserve.

The environmental stressors affecting the park span a broad range of factors that directly or indirectly involve a diverse range of human activities. The following ecosystem management goals, objectives, key actions and indicators of ecological integrity have been formulated in response to many of these stressors.

4.2 Ecological Integrity Protection Principles

The following ecological integrity protection principles will be used to ensure that ecological integrity is maintained in KNP&R. These guidelines are based on conservation biology principles, adaptive management and the principle of ecological precaution. Kluane National Park & Reserve will continue to use the three criteria identified in the 1990 park management plan:

Compatible means park use and management actions will be compatible (sympathetic and complementary) with the wilderness nature of the park and the sensitivity of its resources;

Controllable means Parks Canada will ensure that control is maintained with respect to the means, timing, and frequency of a particular park use or management action; and

Reversible means that Parks Canada will monitor the effects of park use and management, and adjust actions, if required, in order to minimize impacts or completely remove a use of a facility or activity, if necessary.

Kluane National Park & Reserve will evaluate park management activities and development proposals to ensure that all of the following are protected and maintained:

- critical wildlife habitat;
- security areas;
- movement corridors;
- key cultural resource values and sites; and
- wilderness visitor experiences.

When there is limited data to guide decision-making, the principles of precaution and the maintenance of ecological integrity will take precedence. Uncertainty about the impact of any proposed new activities and development necessitates a conservative approach, whereby decisions will err on the side of conservation.

Adaptive Management

Adaptive management is an important tool that will be incorporated into the way management actions are undertaken so that lessons learned can be applied to future decision-making. Adaptive management is a scientifically defensible means of *learning while doing*, which in many ways builds on management principles traditionally utilized by First Nations in the area.

It is often difficult to predict how an ecosystem will respond to management actions. Adaptive management is a strategy applied to achieve management goals and objectives and to gain reliable knowledge about the ecosystem and its response to management actions. Through monitoring programs and feedback mechanisms, actions can be adjusted or modified to achieve the management goals and objectives.

Adaptive Management along the Alsek River corridor

Recreational use management along the Alsek River corridor provides an example of adaptive management within Kluane National Park & Reserve.

In this Zone I special preservation area, the Alsek River is managed to provide maximum resource protection to grizzly bears and their habitat and to provide outstanding opportunities for visitors to experience solitude, natural quiet, and self-reliance. Research revealed that the main travel season for river users coincided with the seasonal movement of grizzly bears to lower elevations. It also found that rafters were camping at numerous sites adjacent to bear movement corridors, near rub trees, and within or adjacent to prime bear foods.

Researchers endorsed a commercial operator's suggestion to schedule rafting departures every second day. While the operator's need was to reduce crowding at Lowell Lake, researchers felt this move would provide the resource a break from recreational use and lower the potential for displacement of grizzly bears from their preferred habitats. Rafters are now required to camp at designated campsites with a lower risk for bear encounters and displacement. This helped establish a number of large "people free" grizzly bear movement corridors across the Alsek River Valley. Trip departures were reduced from one per day to one every second day. Using input from affected users, these new measures were phased in over three years. These changes in the Alsek visitor use guidelines enhanced grizzly bear protection, public safety and wilderness experiences.

4.3 Shared Regional Ecosystems

Kluane National Park & Reserve of Canada is inseparable from the land that surrounds it. It is part of the largest recognized international protected area in the world. This is an obvious benefit for the maintenance of ecological integrity, but it can also be deceiving. Only 18 percent of the park is greenbelt, with forests, subalpine and alpine located almost entirely in the easternmost third of the park. The remainder of the park is icefields and mountain peaks. Many of the park's environmental stressors, such as forestry and rural development, relate to activities occurring outside the park. For example, forest harvesting activities outside the park are currently receiving attention from park managers and the local community.

Regional cooperation and integrated planning are essential if ecological integrity is to be maintained. A positive example is the *Alsek Moose Management Plan*, coordinated by the Alsek Renewable Resources Council, completed in 1998 and now being implemented. Parks Canada will seek opportunities to work with others to ensure that the productive lands located inside and adjacent to the park are managed in a holistic manner so that ecological integrity is maintained or restored.

4.3.1 Strategic Goal

Integrated planning and management in the greater Kluane ecosystem leads to enhanced ecological integrity.

4.3.2 Objectives

1. To build relationships and share information among the governments, agencies, interest groups and individuals in the regional ecosystem.
2. To encourage the development of holistic, integrated land use plans and cooperative management agreements and decision-making for the regional ecosystem.
3. To provide for the protection of fish and wildlife habitat within the park as a first priority.

4.3.3 Key Actions

1. Continue to work with the Alsek Renewable Resources Council and adjacent governments and agencies to implement the *Alsek Moose Management Plan.*
2. Update the 1995 cumulative effects assessment concerning the impacts of visitor activities, harvesting practices, park operations, natural ecological processes and the aboriginal cultural relationship to place within the greater Kluane ecosystem.
3. In collaboration with others, maintain and enhance geographic information systems and other tools to support decision-making at the regional level.
4. Work with governments, agencies and councils with jurisdiction adjacent to the park on bear management in the region.
5. In partnership with others, advance the national Species at Risk program.
6. In partnership with others, encourage the development of a Yukon Conservation Data Centre.
7. In collaboration with others, identify and map priority ecologically significant areas and activities in the greater Kluane ecosystem.
8. Participate in regional forest management planning.
9. Work with adjacent governments and agencies to develop and implement common aquatic ecosystem goals and strategies.
10. Work with adjacent governments and agencies to identify regional wildlife populations under stress or at risk (e.g., Kluane caribou herd) and, if feasible and appropriate, develop management strategies to restore these populations.
11. Work with managers from the other protected areas in the World Heritage Site to cooperate on mutually beneficial monitoring programs.

4.4 Cultural Reintegration

The Southern Tutchone have a long-standing relationship with the land. For thousands of years they have been an integral part of the greater Kluane ecosystem. The park forms part of their cultural landscape.

An *aboriginal cultural landscape* is a place valued by an Aboriginal group (or groups) because of their long and complex relationship with the land (definition adopted by the Historic Sites and Monuments Board of Canada, 1999). It expresses their unity with the natural and spiritual environment. It embodies their traditional knowledge of spirits, places, land uses and ecology. Material remains of the association may be prominent, but will often be minimal or absent.

The traditional knowledge that arises out of the Southern Tutchone relationship to the land contributes to the maintenance of ecological integrity and contributes to the modern day management of the park. Unfortunately, the exclusion of aboriginal people from the park from the mid to late 20th century has had negative consequences not only on the park's ecological health, but also on First Nation culture. As a result of not being able to use the park, community members could not pass on traditional knowledge of the park lands and resources and their people's history in the area.

The sustainable relationship the Southern Tutchone have had with the lands within Kluane National Park & Reserve should be re-established and fostered. Activities that enhance and pass on traditional knowledge within the local First Nation communities will also be encouraged. Local First Nations will again use this part of their traditional lands and will play a greater role in park management. Such programs will contribute to the ecological health of the park.

4.4.1 Strategic Goal

The aboriginal cultural landscape is recognized as an integral part of the Kluane regional ecosystem, and through the expression of Southern Tutchone traditional knowledge, is a significant contributor to ecosystem management.

4.4.2 Objectives

1. To re-establish Kluane National Park & Reserve as part of the Southern Tutchone cultural landscape.
2. To integrate the concept of cultural landscape into the understanding of the ecological integrity of the Kluane Region, and into traditional knowledge of ecosystem management.
3. To acknowledge and respect First Nation cultural heritage in all aspects of management.

4.4.3 Key Actions

1. Work with Champagne and Aishihik First Nations and Kluane First Nation to establish programs (e.g., culture camps, participation in wildlife surveys) that enable First Nation members to become reacquainted with their cultural heritage in the park, and to convey this knowledge to members of their communities.

2. Work with Champagne and Aishihik First Nations and Kluane First Nation to develop and deliver programs (e.g., workshops, spending time on the land with Elders) that assist park staff and others to understand how First Nations' traditional knowledge and ties to the land contribute to the maintenance of ecological integrity.
3. Establish guidelines to ensure that park research and management programs are used as opportunities to familiarize local First Nation members with the park's plant and animal communities.
4. Support local First Nations in the development and delivery of educational programs to First Nation members that focus on land-based aspects of Southern Tutchone culture (e.g., educational trap line).

4.5 Ecological Monitoring

Ecological monitoring provides information about complicated and complex systems and the effects of disturbances on those systems, and serves as an early warning mechanism to trigger management responses or further research. It can also serve as a feedback mechanism on management interventions through which adaptive management can emerge. Finally, monitoring can serve as a primary tool for assessing progress toward ecological integrity goals, and hence, act as a key accountability mechanism on progress toward ecological integrity. One of the challenges is to design and implement an ecological monitoring program for the park that will be both effective and sustainable over the long term. (Refer to Section 6.10 for objectives and actions related to monitoring human impacts.)

Ecological monitoring involves measurements made consistently over a long period of time to track changes in the structure and function of ecosystems. These characteristics differentiate ecological monitoring from other kinds of ecological research. Park staff conduct many activities that constitute ecological monitoring.

Recently, Parks Canada, in partnership with researchers at the Arctic Institute of North America at Kluane Lake and others, have identified a small battery of ecological measurement protocols which measure baseline conditions. Many of these protocols have been carried out in the Kluane Region for the past two decades. These long-term databases provide unique and valuable information about the health of Kluane Region ecosystems as well as about incremental changes that may be taking place over time. There is a commitment to continue these protocols for many years into the future; some of them will assist in tracking climate change in the region.

Monitoring activities linked to Indicators of Ecological Integrity (Section 4.9) will lead to management actions where appropriate and feasible.

4.5.1 Strategic Goal

Integrated ecological monitoring programs for the collection, storage, analysis and interpretation of data leads to enhanced ecological integrity in the greater Kluane ecosystem.

4.5.2 Objectives

1. To provide ecological information that leads to early and decisive management actions.
2. To record natural variation in order to detect significant changes in the Northern Coast Mountains Natural Region and monitor parameters on a wide range of temporal and spatial scales including effective indicator species.
3. To involve CAFN and KFN in the development and implementation of monitoring programs.
4. To monitor wildlife populations suspected to be directly affected by human activities.

4.5.3 Key Actions

1. Develop and implement an ecological monitoring program in cooperation with governments and agencies, CAFN and KFN and researchers.
2. With researchers at the Arctic Institute of North America and other partners, implement protocols that monitor a variety of ecological components.
3. With appropriate partners, continue to carry out consistent long-term surveys that monitor park and regional wildlife populations such as Dall's sheep, mountain goats, moose and Kokanee salmon, and analyze this information and take appropriate management actions.
4. Participate in regional, national and international monitoring networks such as the Breeding Bird Survey of North America and relevant monitoring programs of agencies such as Atmospheric and Environmental Services Canada and the Fish and Wildlife Branch of the Yukon Department of Environment.
5. Monitor long-term permanent plots for changes in the forest's structure and function as a result of recent large-scale spruce beetle outbreaks.

4.6 Vegetation

Kluane National Park & Reserve's vegetation is most typically representative of northern boreal forest. Approximately 18 percent of the park is vegetated and only seven percent is forested. Forested areas tend to occur east of the park's icefields in valley bottoms, lower slopes or montane regions below 1100 m. Extensive areas of white spruce and deciduous forests are interspersed with marsh, fen, and shrub and herb community types.

Diverse climatic, topographic and biological conditions and natural disturbance processes influence vegetation within the park and region. Wildfire, flooding and outbreaks of insects and disease shape the vegetation communities that exist today, as in the past. The region continues to be affected by one of the largest outbreaks of spruce bark beetle since the 1940s, an area in excess of 28,595 ha. Additional knowledge of these processes and the role they play is required, most notably wildfire and insect and disease outbreaks. The issue of encroachment of exotic plant species also needs to be addressed.

Vegetation planning and strategies that address these and other issues need to be developed. These strategies should be coordinated with neighboring land agencies to ensure that vegetation management within KNP&R is effective in maintaining a healthy ecosystem and is compatible with adjacent land use practices.

4.6.1 Strategic Goal

Natural processes maintain the long-term composition and structure of vegetation communities.

4.6.2 Objectives

1. To maintain native plant diversity by protecting significant vegetation features (species, populations, communities).
2. To allow for natural succession while protecting values at risk.
3. To control and prevent the introduction of non-native plant species that threaten the integrity of native plant species and communities.

4.6.3 Key Actions

1. Develop a vegetation management plan for the park, including an examination of normal succession for the Kluane ecosystem, fire history and the potential role of prescribed fires in these plant dynamics.
2. Determine the history of spruce bark beetle outbreaks in the park to better understand the significance of the large-scale outbreaks of the 1990s in the Kluane Region.
3. Continue to work cooperatively on fire management with the Department of Indian Affairs and Northern Development (DIAND), including an assessment of fire risk to local communities.
4. Work to prevent the introduction of non-native plant species, and, when warrented, control or eliminate them through effective management programs.

4.7 Wildlife

Kluane National Park & Reserve is perceived and managed as a wilderness park. Grizzly bears and Dall's sheep in particular symbolize the wilderness nature of the park. Species such as wolves, wolverines, mountain goats, golden eagles and others also contribute to the quality of place. Viable populations of these species provide a measure of the ecological integrity and wilderness character of the park.

KNP&R's wildlife populations are naturally regulated to a large degree, but human influences are increasing both within and outside the park. Many wildlife species are transboundary and depend on habitats on both sides of the park boundary. As a result, they are subject to a variety of human influences such as mortality and insufficient management regimes outside the park (e.g., low moose population in the Shär Ndü Chù/Duke River area). Concerns within the park include habituation to humans, obtaining food from humans (and becoming problem wildlife), and disease transmission from domestic animals.

While there has been a significant amount of large ungulate population monitoring and grizzly bear research in the park, it is still very difficult to determine and delineate the competing factors that cause declining population trends.

Subsistence harvest levels are currently very low and are discussed in Section 6.1.

4.7.1 Strategic Goal

Terrestrial biological diversity and naturally fluctuating populations are maintained within established norms.

4.7.2 Objectives

1. To maintain habitat effectiveness by protecting critical habitat (e.g., calving areas, winter range, den sites) and movement corridors and by minimizing disturbance and displacement of wildlife as a result of human activities.
2. To maintain naturally fluctuating populations of wildlife species within the Kluane ecosystem, including viable populations of grizzly bears, wolves, wolverines and other rare or sensitive wildlife vulnerable to displacement and disturbance by people.
3. To minimize human/wildlife conflicts.

4.7.3 Key Actions

1. Identify and map critical habitat and movement corridors for large mammals and introduce management measures as required to protect them (e.g., Alsek River Management Guidelines).
2. Review and implement appropriate recommendations from the Grizzly Bear Project report.
3. Continue to support the collection of information on bear ecology through cooperative scientific research and local and traditional knowledge.
4. Continue to implement the park's Bear Management Plan.
5. Analyze existing data from wildlife surveys and set a target and confidence levels for wildlife populations.

4.8 Aquatic Ecosystems

Kluane National Park & Reserve's aquatic ecosystems are characterized as cold, with relatively low productivity, and in some cases they are extremely sensitive to disturbance. These systems are diverse ranging from clear high mountain lakes and streams to glacier-fed, silt-laden rivers, and low elevation lakes and wetlands. The wilderness character of the park, its relative remoteness and low visitation has provided some protection to these ecosystems. The Dezadeash River watershed supports the only population of Kokanee salmon in southwest Yukon (inside and outside the park), with the Kathleen Lake population currently considered free of disease. Park staff are working with Yukon government staff to manage the Kathleen River watershed as a single unit.

Increased visitation, peripheral development, upstream threats and stressors have increased the need for specific management and monitoring strategies. The Dezadeash River wetlands, for example, are directly influenced by flow regimes regulated by the Aishihik Dam located outside the park, and its impacts are unknown.

Subsistence fishing levels in the park are currently very low. Recreational fishing has been a popular activity since the completion of the Alaska and Haines highways in the 1940s. Periodic creel censuses monitor fish populations in popular lakes and are used to set recreational fishing catch limits. A creel census completed in 1995 suggested that harvest levels might be approaching the maximum sustainable yield for Kathleen Lake, and recreational fishing was listed as one of the park's top five environmental stressors in the 1999 *State of Protected Heritage Areas Report*. The impact of fishing on these low productivity lakes is uncertain and requires further research and monitoring to ensure that conservative catch limits are maintained.

Monitoring of disease levels in Kokanee salmon, water chemistry of the Dezadeash River and fish harvest levels in Kathleen Lake are examples of some of the aquatic ecosystem work currently taking place in the park. A comprehensive review of the park's aquatic ecosystems, complete with the establishment of management objectives and strategies, is required. Benchmark lakes may be established as part of the aquatic ecosystem management strategy.

4.8.1 Strategic Goal

The natural structure and function of aquatic ecosystems are maintained.

4.8.2 Objectives

1. To maintain viable, naturally regenerating populations of native fish species within the park.
2. To maintain water quality, water levels and flow regimes within the natural range of variability.

4.8.3 Key Actions

1. Develop and implement aquatic ecosystem management objectives and strategies that provide for the maintenance of ecological integrity of aquatic ecosystems in the park.
2. Continue to monitor water quality on the Dezadeash River to ensure that it meets or exceeds federal water quality guidelines.
3. Monitor baseline water quality and key aquatic populations in order to detect changes in the park's aquatic ecosystems.
4. Update and evaluate inventories of native fish populations in park aquatic ecosystems.
5. Collect information on the presence of amphibians and their potential role as indicator species for the ecological integrity of wetlands.

4.9 Indicators of Ecological Integrity

The effectiveness of the actions outlined in this section (Table 1) will need to be assessed to determine if ecological integrity is being maintained. The park's vision states that traditional and scientific knowledge will be given full and fair consideration in the protection, management and operation of the park. While this section primarily deals with what could be called a scientific approach, Kluane National Park & Reserve recognizes that traditional knowledge is a valuable source of information and guidance for the assessment of ecological integrity. The use of

TABLE 1. INDICATORS OF ECOLOGICAL INTEGRITY

Landscape processes

INDICATOR	TARGET	STATUS/ACTIONS
• Landscape fragmentation 1. Habitat fragmentation 2. Habitat connectivity for large mammals	• Targets to be developed.	• Research is underway with the University of Calgary to develop targets. • Ongoing satellite image collection and analysis provides coarse measures.
• Major disturbance processes 1. Status of spruce beetle outbreaks in spruce forest 2. Frequency, extent and severity of wildfire	• Targets to be developed.	1. Some spruce beetle monitoring is underway with the Canadian Forest Service. 2. Work is required to determine the roles and effects of these disturbances in the ecosystem.

Aquatic Ecosystems

INDICATOR	TARGET	STATUS/ACTIONS
• Status of aquatic ecosystems	• Targets to be developed.	• Management objectives will be developed and appropriate actions determined.
• Water quality	• In water bodies subject to human use, water quality parameters will be within federal water quality guidelines, except where natural chemistry or biological events normally exceed them.	• Appropriate actions will be determined for specific water bodies.
• Status of harvested fish populations	• Biological parameters (e.g., morphonmetric index of harvest effects, size and age distributions) of lake trout in selected water bodies remain characteristic of natural populations. • Recreational harvest remains within sustainable levels (recognizing that the goal of ecosystem integrity takes precedence over provision of recreational fishing opportunities).	• Management objectives will be developed and appropriate actions determined. • Fishing regulations are enforced.

Vegetation

INDICATOR	TARGET	STATUS/ACTIONS
• Net primary productivity of plant communities	• Targets to be developed.	• Underway, monitored with satellite imagery for all northern parks.
• Productivity of selected plants and fungi (spruce cones, soapberries, forest mushrooms)	• Targets to be developed.	• Underway, in cooperation with partners.[1]
• Community, species and genetic diversity	• All native plant species remain present. • All natural plant communities remain present. • No new exotic species occur, and existing exotic species do not spread. • Where it is known, genetic diversity of populations is maintained.	• Species list is being refined; plant community mapping is underway; a number of exotic species are documented.

Wildlife

INDICATOR	TARGET	STATUS/ACTIONS
• Species and genetic diversity	• All native species remain present. • No exotic species occur. • Where it is known, genetic diversity of populations is maintained.	• Mammal and bird species are known, no exotic species are documented within the park.
• Breeding populations of birds	• Targets to be developed.	• Underway
• Snowshoe hare population	• Changes in periodicity and amplitude of the ten-year population cycle reflect natural conditions.	• Monitoring underway, in cooperation with partners.[1]
• Furbearer populations	• Targets to be developed.	• Some monitoring underway, in cooperation with the Kluane Park Management Board and Champagne and Aishihik First Nations.
• Grizzly bear population 1. Population level 2. Human-caused mortality	1. Population does not fall below minimum viable population level. 2. Destruction or removal from the population should not exceed one bear in any seven-year period.	• Monitoring underway, population viability analysis is required to set target.
• Grizzly bear habitat 1. Habitat effectiveness 2. Habitat security	• Targets to be developed.	• Research is underway with the University of Calgary to develop targets.

Use of Standard Deviation

Standard deviation as a statistical parameter can provide an objective measure of the extent to which a variable, such as total count, fluctuates over a specific monitoring period. An indicator that a population may require further attention would be when the total count in an annual survey is lower or higher than the Long Term Average minus or plus its Standard Deviation (LTA ± SD). The table below represents the target threshold range using this approach for moose, mountain goat, Dall's sheep and sockeye salmon populations within Kluane National Park & Reserve. If an annual total count falls outside the target threshold range, the population will be examined more closely. For example, an analysis of the proportion of young (i.e. ratio of young to adult females) and adult sex ratio will be carried out to help evaluate the biological significance of the change in population parameters. This evaluation will help to determine the appropriate management or research actions needed in response to a change from the target threshold range.

INDICATOR	TARGET THRESHOLD RANGE	STATUS/ACTIONS
Regional moose population • Auriol Range: 16 year monitoring data base • Shär Ndü Chù/Duke River: 9 year data base	• LTA ± SD = threshold range 227 ± 32 = 195 to 259 • LTA ± SD = threshold range 105 ± 8 = 97 to 113	• Monitored annually.
Dall's sheep populations • Dän Ƶhùr/Donjek: 10 year data base • Tachäl Dhäl (Sheep Mtn.): 19 year data base • Vulcan Mtn.: 13 year data base • Auriol: 7 year data base	• LTA ± SD = threshold range 593 ±139 = 454 to 732 • LTA ± SD = threshold range 339 ± 39 = 300 to 378 • LTA ± SD = threshold range 383 ± 91 = 292 to 474 • LTA ± SD = threshold range 336 ± 49 = 287 to 385	• These four areas are monitored on a rotating year basis.
Mountain goat populations • Goatherd Mtn: 17 year data base	• LTA ± SD = threshold range 108 ± 29 = 79 to 137	• Monitored biannually.
Sockeye populations • Sockeye and Kathleen Lakes: 21 year data base (with 1981/95 outliers) • Without 1981 and 1995 outliers	• LTA ± SD = threshold range 3416 ± 1678 = 1738 to 5094 • LTA ± SD = threshold range 2983 ± 1017 = 1966 to 4000	• Monitored annually.

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[1] Partners include: researchers at the Arctic Institute of North America, the Canadian Forest Service, University of Alberta, University of British Columbia, University of Toronto, Yukon College, Yukon Department of Environment.

traditional knowledge in ecosystem management processes is a relatively new development; consequently, Parks Canada and its cooperative management partners will need to engage in an adaptive learning process to accomplish this. It will not be beneficial to compare traditional knowledge directly with knowledge gained through scientific techniques, nor to simply extract information from people without regard for the information's cultural context. The challenge will be to consider both sets of knowledge and their unique and complementary roles in the cooperative management system.

In Table 1, indicators have been selected to reflect important ecological processes and ecosystem components, and were also chosen for their practical merits. The targets represent specific levels of indicators which, if maintained, suggest that the ecosystem has a high degree of integrity. The results of the measurements of these indicators, through monitoring and research, will be reported regularly and will be integrated into the new 5-year *State of the Park Report* and *Parks Canada's biennial State of Protected Heritage Areas Report*. They will also be used to generate management action where it appears that ecological integrity is being impaired.

Some work remains to be done. Targets need to be set in some key areas (e.g., aquatic ecosystems), and many will require further assessment and development. Some measures still need to be refined, and the overall set of indicators may not be comprehensive enough. Opportunities for review and further input will also be needed. KNP&R will continually work to improve these indicators and targets and adapt them to achieve our overall ecological integrity goals.

4.10 Communicating the Need for Ecological Integrity

Ecological integrity depends upon people being informed. Their decisions and actions influence ecosystems. Goals, objectives and actions related to ecological integrity cannot be accomplished without the support of governments, local residents, visitors and all Canadians.

4.10.1 Strategic Goal

Canadians understand the challenges involved in maintaining the ecological integrity of the park. They support management actions taken to ensure ecological integrity, and make personal decisions that foster ecological integrity.

4.10.2 Objectives

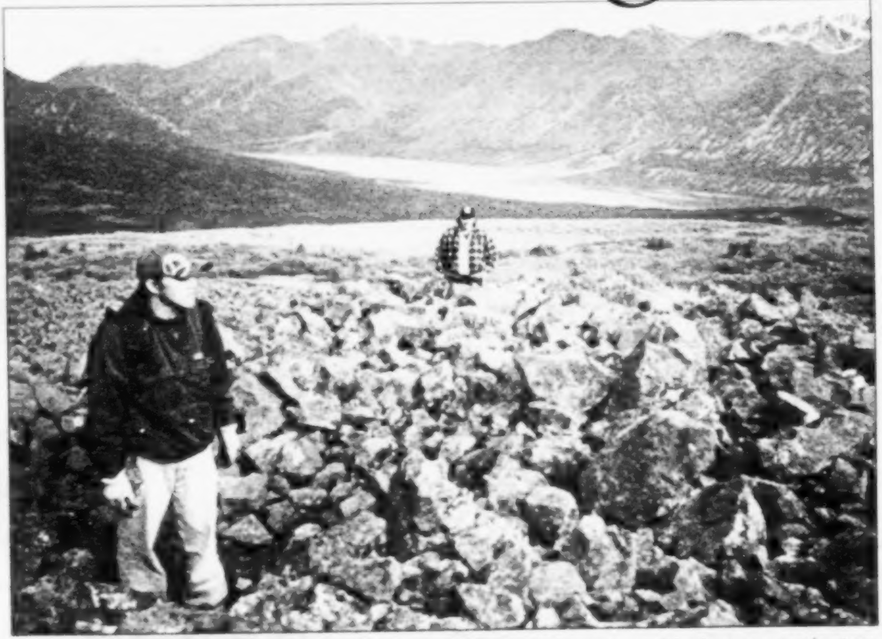
1. To reach broader audiences with key ecological integrity messages.
2. To ensure that ecological integrity messages are incorporated into all major park communications.
3. To effectively use communication and education to increase support and advocacy for the maintenance of the park's ecological integrity.

4.10.3 Key Action

1. Provide opportunities for the public to learn more about park research and management actions and the role they play in maintaining ecological integrity. Achieve this by ensuring a communication component is included in all park research and major management actions.

For messages and other key actions related to communicating the need for ecological integrity, refer to Sections 6.2 (Heritage Tourism) and 6.3 (Interpretation and Outreach).

A Place with Cultural Heritage



Aaron Doris (KFN) and Richard Greer (CAFN) inspecting rock pits constructed by long ago people at an archaelogical site overlooking the Kuskawulsh Valley.

Sheila Greer

5.0 A PLACE WITH CULTURAL HERITAGE

Kluane National Park & Reserve's magnificent landscape has attracted the attention of humans for centuries. The earliest residents were drawn by subsistence opportunities. Later visitors were lured by the possibilities of mineral wealth or seeking answers to scientific questions. Modern day visitors come to the park for recreational and educational purposes. Helping people understand their place in nature is an important element of the national park experience.

5.1 Cultural Heritage Resources

Cultural resource management programs preserve and celebrate the human experience of the place that is now Kluane National Park & Reserve. They research how and why people came to this region and recognize the ways in which people have interacted with the land through time. The evidence of past human presence is sometimes represented by physical remnants such as campsites, brush huts, cabin remains, trails or goods left behind. We are also made aware of human history by non-physical resources such as place names (Table 2, Map 2), associated stories and people's detailed knowledge and accounts of place. Management of these resources is an important element of park stewardship.

A variety of archaeological and historical studies have been carried out in the park. Mining cabins have been documented, mountaineering history and highway construction researched and significant aboriginal cultural sites studied. A Historic Sites and Monuments Board of Canada plaque was erected at Soldier's Summit at Tachäl Dhäl (Sheep Mountain) in 1992 to commemorate the Alaska Highway.

The first archaeological explorations in the area, conducted in the late 1970s and early 1980s, focused on documenting of sites associated with the early 20th century Kluane Gold Rush and subsequent mineral extraction activities. Though a small number of pre-contact aboriginal sites were discovered near Kathleen Lake and on the Airdrop Lake Plateau, almost all of the 100 sites documented related to post-contact mineral extraction activities. The aboriginal presence in the park was virtually unrepresented.

The discovery by park staff in 1990 of rich deposits of stone flakes, tools and animal bone fragments eroding from the riverbank in the Dän Zhùr/Donjek Valley led to salvage excavations of two important pre-contact sites in the valley and an expanded survey of the park. The survey was conducted between 1993 and 1999, and was designed to redress the imbalance in the representation of cultural resources.

At the conclusion of the survey program in 1999, the inventory had been increased to some 250 archaeological sites. The pre-contact sites suggest use of the park area for more than 7,000 years. Several sites relate to the harvesting of mountain sheep and goats, and there is evidence that animals no longer represented in the park, such as bison, were also hunted. The earliest of the pre-contact sites may have been associated with the shoreline of a glacial lake that filled the basin of present day Kathleen Lake.

Resources related to historic use are also abundant. There are several cabin ruins in the park. Some date back to the Kluane Gold Rush, others relate to more recent trapping and hunting activities by local people, and can be linked to oral history. Many of the traditional use sites are fragile brush hut structures, and appear to be clustered in important fishing areas. Axe-cut stumps occur on the hillsides above these campsites, and there are occasional stumps cut with a stone adze, which suggest continuity of use of the same locations before the introduction of European metal tools.

To address the requirements of Parks Canada's Cultural Resource Management Policy, as projects are undertaken the significance of the cultural resources is evaluated and monitoring strategies are developed as required.

The recent recovery of rare aboriginal artifacts from melting glaciers (ice patches) just outside the park has increased awareness of the potential for unique heritage discoveries within the greater Kluane Region. The cultural resource management issues arising from these discoveries are only beginning to be understood. Coordinated ice patch research efforts within the region are needed.

The park's aboriginal history is a long one, yet the legacy of that history is not well known or publicly communicated. Furthermore, it is not well understood by the local First Nation communities for whom it has the most meaning. Cultural resource work in the park during the life of this plan will emphasize collaboration with the local First Nations. This does not mean that cultural resources related to gold mining, highway construction and mountaineering will be ignored, but this will not be the priority during the life of this management plan. Projects will be developed to inventory aboriginal sites and features and assist local First Nation members in learning about their people's history in the park. The park's cultural resource management programs will operate in partnership with First Nation heritage programs. For example, the Champagne and Aishihik First Nations are building a heritage program concerning the history of their people and the lands within their traditional territory. The park's cultural resource management programs recognize the importance of such efforts and support First Nation capacity building in this area. This collaborative approach will also strengthen heritage tourism in the region.

5.1.1 Strategic Goal

The enduring human presence in the ecosystem is acknowledged, fostered and respected by protecting and presenting the cultural resources and values of Kluane National Park & Reserve.

5.1.2 Objectives

1. To ensure that the cultural resources of the park are identified, understood, communicated and protected.
2. To ensure that Southern Tutchone cultural values are reflected in cultural resource programs.
3. To document and understand the Southern Tutchone cultural landscape.

5.1.3 Key Actions

1. Support programs that further the understanding of traditional Southern Tutchone relationships with the park, including community-based research projects that identify, inventory and research archaeological sites, cultural sites and trails and evaluate the future use of these features. A high priority project will be to identify, inventory and map traditional First Nation trails in the park.
2. Develop a cultural resource management program for the park that involves local First Nation governments and contributes to their cultural resource management capacity.
3. Working with CAFN, KFN, Yukon government and others, increase knowledge and develop protocols to enable a timely and coordinated response (e.g., ice patch research) to extraordinary new cultural heritage finds in the park.
4. Evaluate the significance of known cultural resources associated with gold mining, highway construction and mountaineering and take action as appropriate.

5. Complete research on and produce an administrative history of the park.
6. Establish protocols that will ensure that cultural resource management programs are used to further First Nation cultural and heritage education.
7. Research and use aboriginal place names on park signage and publications, and explain the history and importance of the place names. This informs visitors that the park is within CAFN and KFN traditional territories.
8. Develop a joint identity for the park (including signs, publications) with local First Nations to reflect the cooperative management of the park, recognizing existing Parks Canada corporate identity guidelines.
9. Support local First Nations in developing and delivering educational programs to First Nation members on aboriginal culture related to the park.
10. Jointly, Parks Canada and local First Nations will educate park staff and First Nation members about different perspectives concerning cultural resources and their management.

Table 2. Southern Tutchone Place Names
Kluane National Park & Reserve and Area – Selected List

Aboriginal toponyms, or place names, are important sources of local history. Some names are descriptive, noting a characteristic of a place or an important resource found there. Other place names have long ago stories associated with them and thus are considered important mnemonic (recall) devices for events that took place in the past, sometimes even in the far distant past of myth time. Some names are so old that their meaning has been lost, and they remain just a name. All of the names listed are in Southern Tutchone, although some features in the area have Tlingit as well as Southern Tutchone names. Some current English language names are either translations, corruptions or variants of the aboriginal name.

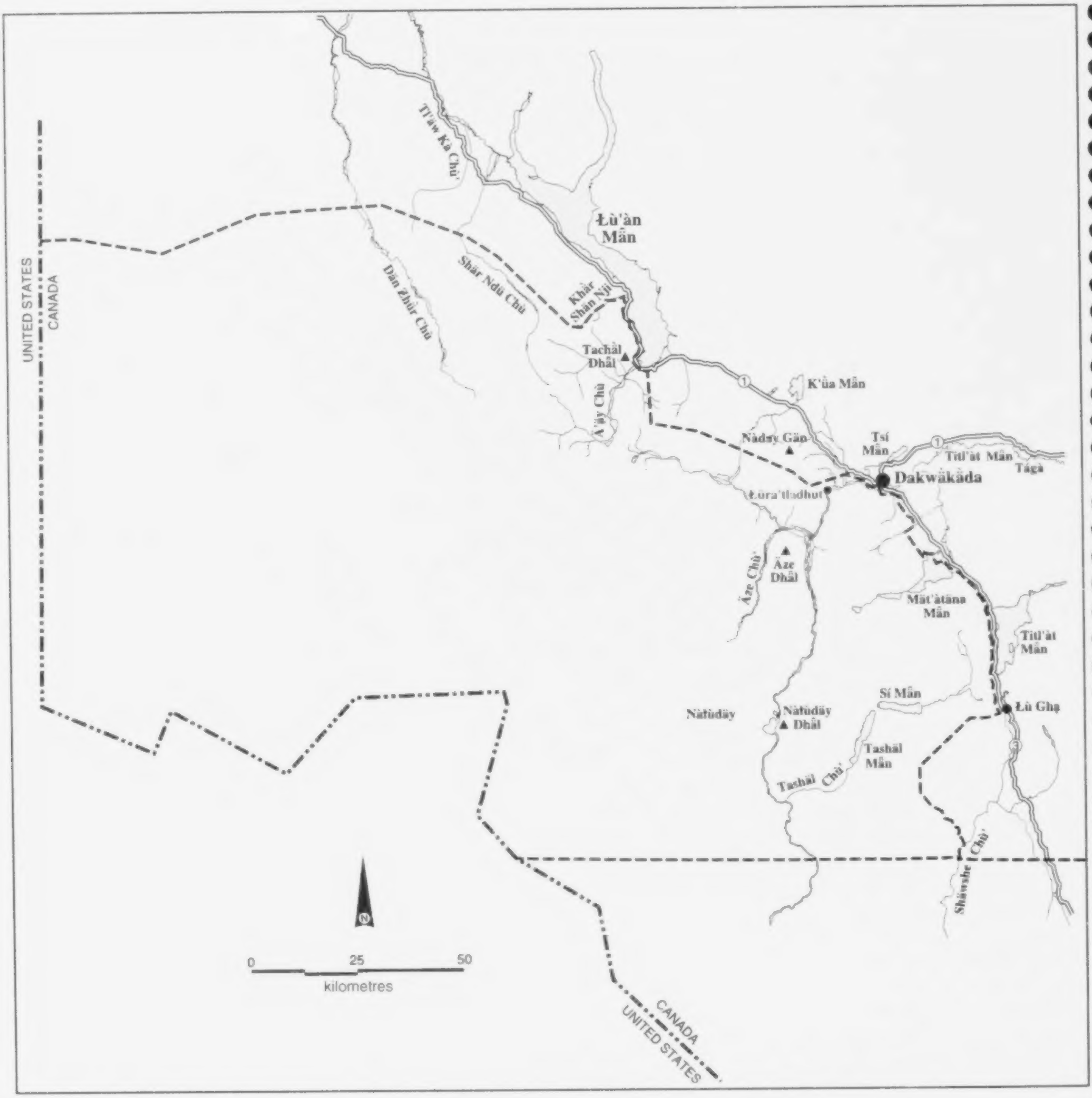
Aboriginal Name (with translation)	**Map Name or Landscape Feature**	**Story, Comments**
Ā'ą̈y Chù (by itself water)	Slims River	Descriptive name, refers to mountain by river, which stands alone by itself. Sources (1) (3)
Äze Dhā̈l (heart mountain)	Profile Mountain	Descriptive name; the mountain is considered to be shaped like a heart. Source (2)
Äze Chù' (heart river)	Dusty River	River takes its name from the mountain that sits by its mouth, east side. Source (2)
Dakwä̀kä̀da (high cache place)	Haines Junction	Situated on Dezadeash River, Dakwä̀kä̀da is at the intersection of traditional travel routes, and in the olden days was a convenient place to cache meat from game hunted in the nearby mountains. The caches were located where the new Champagne and Aishihik First Nations village is situated. Source (3)
Dän Ƶhùr Chù (people berry water)	Donjek River	Descriptive name which refers to the white or silver berries (Dän Ƶhùr Chù) that grow along the river. These are edible and the large seeds of the berries were used as beads for decorations. Sources (1) (3)
Khä̀r Shän Nji (big roots broken down)	Congdon Creek	Descriptive name. Trees along this creek's floodplain have been uprooted by flash floods coming out of the mountains. Sources (1) (3)
K'ǜa Mā̈n (fishtrap lake)	Kloo Lake	The K'ǜa Mā̈n name refers to traps for catching fish. Oral history reports that salmon used to spawn here before Nàłùday blocked the river, thereby stopping the fish from coming up to the lake. The lake is a traditional camping place, with an old village (with cabins and graveyard) on the west side of the lake, and a newer village, occupied by the descendents of K'ǜa Mā̈n people, on the south side of the lake near the highway. Sources (2) (3)
Łù'àn Mā̈n (big whitefish lake)	Kluane Lake	Descriptive name. Łù'àn Mā̈n is a lake where people catch fish. It is good for whitefish, as well as trout and thì or dog salmon. It is the biggest lake in the Yukon, and its deep waters can make for dangerous boating conditions at times. The English name for the lake is derived from the Tlingit Lùxhàní. Sources (1) (3)

Aboriginal Name (with translation)	**Map Name or Landscape Feature**	**Story, Comments**
Łù Ghą (fish place)	Klukshu (Lake and Village)	Descriptive name. Łù Ghą is a traditional Southern Tutchone fishing place, and is still an important seasonal village and gathering place for Champagne and Aishihik people. King, sockeye, coho and dog salmon come up Klukshu Creek to the lake. The Klukshu name is Tlingit, and means end of the salmon (that is, farthest point upstream). Sources (2) (3)
Łüra’tladhut (wave marks)	Beach lines on east and west sides of Dezadeash River, south of Alsek Pass	Descriptive name, which explains the parallel gravel bench features on both sides of the Dezadeash River; these are beach lines from glacial Lake Alsek. Source (2)
Mät’àtäna Mǟn (frozen lake)	Kathleen Lake	Descriptive name. Mät’àtäna Mǟn, the largest lake in Kluane National Park, is in a steep sided valley; winds on the lake make for dangerous boating conditions. The lake has a variety of fish, including two special ones, the pygmy whitefish and kokanee or land-locked salmon. Sources (2) (3)
Nàłùdäy (fish stop)	Lowell Glacier	The Nàłùdäy name refers to long ago event(s), when an advance or advances of the Lowell Glacier blocked salmon from coming up the river to spawn. The blockage likely had drastic consequences for the area’s residents, who would have relied on the salmon for food. The Lowell Glacier has advanced and blocked the river several times in the past millennium, and it is not certain which advance(s) this story refers to. Source (2)
Nàłùdäy Dhǟl (fish stop mountain)	Goatherd Mountain	This mountain takes its name from the Lowell Glacier (Nàłùdäy), which it overlooks. The glacier has advanced to the base of this mountain blocking the flow of the Alsek River in the past. Source (2)
Nàday Gän (dried lynx mountain)	Mt. Decoeli	Information on how this mountain got its name has been lost. Clearly visible from Haines Junction, Nàday Gän is used as a weather guide or forecaster by local residents. Sources (2) (3)
Shär Ndù Chù (long bear river)	Duke River	Descriptive name - huge or powerful bear river. There are many large bears in this valley, which has also been an important travel route between hunting areas. Sources (1) (3)
Shäwshe (unknown)	Dalton Post or Neskataheen	Shäwshe is an old Southern Tutchone settlement located around the mouths of two salmon spawning streams on the Tatshenshini River. The old village site, located at the mouth of Village Creek (Southern Tutchone - The T’àt Chùa meaning water inside the rocks), also known by the Tlingit name Neskataheen, was an important regional trade centre in the 19th century. The younger Shäwshe village site, located slightly farther upstream at the mouth of Klukshu Creek, was a centre of activity during and after the Klondike Gold Rush, at which time it gained the English name Dalton Post. Source (2)

Note: Accents provided by CAFN and KFN for place names in their respective traditional territories.

Aboriginal Name (with translation)	Map Name or Landscape Feature	Story, Comments
Shäwshe Chù' (unknown - river)	Tatshenshini River	The Southern Tutchone name for this river comes from the old settlement. The Tlingit name for this river is Alsèxh, from which the name Alsek is derived, while the Tatshenshini name, also Tlingit in origin, applies to a tributary upstream from Shäwshe. Around the turn of the 20th century, the river names got confused by outsiders new to the area, and the Alsek name became applied to the main branch of the same system, as it is today. Sources (2) (3)
Sí Män (paint lake)	Mush Lake	Descriptive name. This lake takes its name from the mountain to the north, which is a source for paint (sí) or red ochre (hematite). Source (3)
Tachäl Dhäl (skin scraper mountain)	Sheep Mountain	Descriptive name. This is a flat faced mountain, similar to the flat stone scraper known as a tachäl (variant spelling thetchel) that was used by women for preparing hides. Once a favoured sheep hunting area for the Southern Tutchone and now a favourite sheep viewing place. Tachäl Dhäl was accepted as official name in 2000. Sources (1) (3)
Tashäl Chù' (deep river)	Bates River	The name for the river is thought to have come from the lake (Bates) which it drains. Source (2)
Tashäl Män (deep lake)	Bates Lake	Descriptive name. At Tashäl Män, a giant snake once came ashore to a camp, chasing a small barking dog. It knocked down trees with its head. This lake barely freezes over because of the snake. Sources (2) (3)
Titl'ät Män (head of the lake)	Dezadeash Lake	Descriptive name, reflecting Dezadeash Lake's position at the head of the drainage system. There are many old campsites, cabins and caches around Titl'ät Män, and traditional stories associated with the lake, including a 19th century conflict, where many people lost their lives. Sources (2) (3)
Titl'ät Män Tàgà (river which flows from)	Dezadeash River	Dezadeash River gets its name from the lake at its head. The river is also known by the name Shadhäla Chù' meaning Champagne River, Dezadeash River, or the river that flows by Champagne settlement. Sources (2) (3)
Tl'äw K'a Chù' (long grass water)	Burwash Creek	Descriptive name - long grass water – grass is "sharp" or bladed. Source (1)
Tsí Män (red ochre lake)	Pine Lake	Lake takes its name from the adjacent mountain Tsí Dhäl (Paint Mountain) which is a source of red mineral used to make paint and dye. This is also a good lake for whitefish. Source (3)
Sources: (1) Yukon Geographic Place Names Board, file related to Kluane First Nation (2) Alsek Ethnohistory Research - Traditional Use of Eastern Kluane National Park, 1997 manuscript by Champagne and Aishihik First Nations (includes data from interviews by J. Cruikshank, S. Gaunt, S. Greer. J. Ritter and D. Tlen); (3) Dákeyi CD.		

Map 2. Southern Tutchone Place Names


Tl'àw Kà Chù'
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Shär Ndü Chù
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Tachäl Dhǟl
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K'üa Mǟn
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Tsí Mǟn
Titl'àt Mǟn
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A Place for People

View of the Alsek River

Fritz Mueller

6.0 A PLACE FOR PEOPLE

For nearly 30 years, Kluane National Park & Reserve has been valued as one of Canada's premier wilderness mountain parks. Images of the park are featured prominently in the promotional campaigns for the Yukon Territory. These images are responsible in part for the park's appeal as an unique wilderness area attracting recreational visitors from all over the world. The park is also important to local residents in surrounding communities and other Yukoners as a place to make a living, tour with family, go adventuring and appreciate as a protected heritage area.

Kluane National Park & Reserve lies within the traditional territory of the Kluane First Nation and Champagne and Aishihik First Nations. Members of these First Nations are re-establishing their long-standing relationship with the land within the park.

6.1 First Nation Traditional Uses

This management plan recognizes and respects Kluane First Nation and Champagne and Aishihik First Nations' traditional use of the park, including the right to hunt, fish, gather edible plants and trap furbearing animals. Section 6.1 refers to Champagne and Aishihik First Nations as it relates to their land claim. As the Kluane First Nation does not yet have a signed land claim, their rights within the park are governed by the *Umbrella Final Agreement*, Section 35 of the Canadian Constitution and Canadian case law.

Champagne and Aishihik First Nations

The *Champagne and Aishihik First Nations Final Agreement* (Chapter 10 – Schedule A), empowers the Champagne and Aishihik First Nations to renew, without fees, their traditional harvesting and trapping rights in the park. This provision in the *Final Agreement* addressed the issue of lost harvesting and trapping opportunities for the past half century. The *Final Agreement* also recognizes general convention by stating in 4.8: *The exercise of (harvesting) rights under this schedule [Chapter 10 – Schedule A] is subject to limitations provided for elsewhere in this schedule and to limitations provided for in legislation enacted for purposes of conservation, public health and public safety*. Champagne and Aishihik First Nations now share the management and administration of their subsistence and trapping activities within the park.

Currently, harvest levels in the park are very low. During a series of workshops held in Haines Junction in 1999, CAFN members expressed a need to protect and conserve plant and animal communities in the park for future generations. Future harvesting activities by CAFN will respect the ecological integrity of the park and will be pursued according to conservation principles.

No Harvest Zones

Three No Harvest Zones exist in the park, established as part of the *Champagne and Aishihik First Nations Final Agreement*. They encompass the areas around Kathleen Lake and the northern portion of the Alsek River, the Ä'ąy Chù (Slims River) Valley area and Bates Lake. The zones were established as an interim measure, to ensure the protection of park resources and avoid conflict with established visitor uses until the Kluane National Park Management Board was in place and able to make harvest management recommendations.

The No Harvest Zones are now viewed as a somewhat coarse management tool that needs refinement. The Minister, upon recommendation of the Kluane National Park Management Board, may make modifications to No Harvest Zones. The No Harvest Zones will be reviewed as directed in the *CAFN Final Agreement*.

6.1.1 Strategic Goal

First Nations' rights within the park are recognized, protected, understood and supported by park staff, visitors, local community members and other Canadians.

6.1.2 Objectives

1. To work cooperatively with Champagne and Aishihik First Nations and the Kluane National Park Management Board in implementing the provisions of the *CAFN Final Agreement* related to First Nation traditional uses.
2. To make use of traditional and scientific knowledge in understanding the park's natural environment.

6.1.3 Key Actions

1. Conduct furbearer research in the park, using First Nations, Parks Canada and scientific personnel to support informed decisions on trapping.
2. Using direction from the land claim, develop a management and regulatory approach to First Nation harvest and trapping in the park in collaboration with Champagne and Aishihik First Nations and the Kluane National Park Management Board.
3. Jointly, CAFN and Parks Canada will educate First Nation members and park staff about CAFN members' rights under the land claim related to the park.
4. The No Harvest Zones will be reviewed by CAFN, the Kluane National Park Management Board and Parks Canada.

6.2 Heritage Tourism

Heritage tourism is the segment of tourism that focuses on the experience of visiting a place with historic, cultural or natural significance. Along with other national parks and national historic sites in the Yukon, Kluane National Park & Reserve plays an important role in the territory's tourism industry.

To be successful, heritage tourism must be sustainable. For KNP&R, sustainability means offering a range of opportunities that highlight the unique features and nature of the park without impairing its ecological integrity, damaging its cultural resources or diminishing its wilderness character. This goal can only be achieved through the concerted efforts of visitors, park managers, First Nations and key stakeholders such as the tourism industry. To help achieve this goal, KNP&R will adopt the position to *"attract park visitors to the right place, at the right time, in the right numbers and with the right expectations"*(from the Action Plan on Ecological Integrity).

Visitor experience objectives have been established for each of the major geographic areas of the park (section 6.7) and will be conveyed to potential visitors. Limits of use that visitors can understand and appreciate will be defined. Messages about the maintenance of ecological integrity will be stressed and Parks Canada will work with others to ensure that visitors arrive with appropriate expectations.

Learning travel–high quality learning activities combined with travel–is one of the fastest growing niche markets in the world, and an area of tourism that fits well with national parks. Work will be done to promote learning travel in KNP&R.

Monitoring market trends, visitor surveys and tourism research will help ensure that heritage tourism programs and products meet the needs of visitors, within the parameters of the park mandate.

Park Image

For 25 years, Kluane National Park & Reserve has been successfully promoted as a premier wilderness recreation destination. More recently there is a growing interest in First Nation culture and an interest on the part of local First Nations to share their rich cultures with visitors. Awareness is also growing of the potential for a variety of water-based recreational experiences that the park can offer.

Building on these themes, the park will begin to reflect a more diverse range of opportunities than those currently perceived by most visitors. This broader range will appear in visitor information media produced by the park and products developed in cooperation with partners. Efforts will be made to appropriately communicate images that create an awareness of different park experiences.

Kluane Wilderness–the wilderness park of hikers and mountaineers–will continue to be the primary recreational/visitor service offer. Kluane National Park & Reserve was the Yukon's first park and contributes significantly to the territory's reputation as a wilderness tourism destination. Most park visitors will experience a high quality wilderness trip in a spectacular mountain landscape with a high degree of ecological integrity.

Kluane Waterways will create an awareness of the significant opportunities for high quality water-based wilderness and semi-wilderness experiences in the park. The Alsek Canadian Heritage River, Kathleen and Louise lakes and the Mush and Bates lakes system will be given higher profiles as unique park experiences. Rafting, sea kayaking and boating will all receive greater emphasis as part of the park's recreational/visitor service offer. The potential of these activities to be offered as commercial guided services will be encouraged where appropriate, while opportunities for independent private trips will be maintained.

Kluane Culture will develop public awareness of Kluane National Park & Reserve as part of the Southern Tutchone traditional territories. First Nation cultural interpretation programs and guided trips will feature prominently in the recreational/visitor service offer. The park image will reflect First Nations' role in park establishment and management. Profiling the Southern Tutchone language in park materials and using Southern Tutchone place names will communicate the long aboriginal association with the regional landscape.

Kluane Winter will reflect the variety of visitor opportunities that the park offers during the winter. Cross-country skiing on groomed trails, ice fishing on Kathleen Lake, backcountry ski touring, dogsledding and winter camping are all available during the winter months. These opportunities can be enjoyed by both locals and visitors.

Kluane Region Tourism Plan

Parks Canada participated in the development of the revised Kluane Region Tourism Plan completed in 2000 by the Yukon government. The plan recognizes that the national park is the region's best-known attraction and states that the park "...has been instrumental in creating an awareness of the 'Kluane' name and in protecting the region's natural resources." The Tourism Plan provides current information on the region's tourism market demand, identifies priority markets and provides an analysis of the current tourism product. This information will serve the park well.

Several potential products and services listed in the Tourism Plan fit well with the goals and objectives of the park management plan. They include: interpretive hikes and excursions, First

Nation experiences, quality local arts and crafts, area transport, seasonal wildlife viewing, backcountry skiing, and river trips. During the implementation of the management plan, Parks Canada will work with Yukon Tourism and others to accomplish common goals and objectives.

6.2.1 Strategic Goals

Visitors enjoy year-round, high quality educational, adventure, leisure and travel experiences that are based on national park values. They appreciate the cultural heritage and contemporary associations of Kluane First Nation and Champagne and Aishihik First Nations with the park.

A well-informed tourism industry respects the ecological and cultural values of the park.

6.2.2 Objectives

1. To encourage Canadians to visit, appreciate and enjoy the park.
2. To foster realistic expectations by providing information that helps users understand what KNP&R can offer and what types of uses are appropriate. To encourage the incorporation of ecological integrity messages into marketing programs about the park.
3. To ensure that visitor activities, services and facilities cause minimal disturbance to natural and cultural resources and wilderness experiences.
4. To strengthen the cultural tourism aspects of the park's visitor opportunities.

6.2.3 Key Actions

1. Work with governments and businesses to ensure that tourism products and services are compatible with the park's natural environment and cultural resources and highlight them.
2. Foster and support First Nation efforts to deliver cultural heritage programs and products that focus on their historic and contemporary associations with the park.
3. Work with governments and businesses to ensure that marketing efforts related to the park incorporate ecological integrity messages and create the right visitor expectations by highlighting appropriate uses and behaviours.
4. Use the park website to link potential visitors with other heritage sites and opportunities in the region.
5. Work with the tourism industry to promote learning travel opportunities associated with the park.
6. Use the Film and Video Guidelines, Parks Canada–Yukon Field Unit, which complement national standards, to review applications for commercial filming in the park. They include the provision that public use in the park take precedence over filming activities.

6.3 Interpretation and Outreach

"It is in the national interest to present [our national] heritage through interpretive and educational programs for public understanding, appreciation and enjoyment, both for international visitors and the Canadian public, thereby enhancing pride and giving expression to our identity as Canadians."

– from the Preamble of the Parks Canada Agency Act, *1998*

Interpretation and outreach create an awareness and understanding of the natural and cultural values of Kluane National Park & Reserve. Interpretation is public education that occurs in the park, such as a guided walk, roadside exhibit or a display in one of the visitor reception centres. Outreach is public education that occurs outside the park, such as a program at a local school or the park website read by someone in the Maritimes.

Ecological integrity and cultural resources cannot be maintained without the understanding and support of park users. People need to be aware of their potential impacts on the environment and be informed so that they can make the right choices for the future of the park. Canadians beyond the boundaries of the park can also learn about the park and become engaged in its protection. Interpretation and outreach can be powerful tools in these endeavors.

Kluane National Park & Reserve's interpretation and outreach programming was reduced during the 1990s as a result of nationwide federal government program reviews. KNP&R is now rebuilding its commitment to interpretation and outreach as part of Parks Canada's renewal of heritage presentation. A mix of personal and non-personal interpretation methods are used to contact the park's main audiences. Personal interpretation includes guided walks and campfire programs, while non-personal interpretation refers to media such as park brochures and videos.

A high priority will be placed on the redevelopment, over a number of years, of the Haines Junction Visitor Reception Centre (VRC). This is a key initiative that relates to message delivery, delivery of visitor services, economic opportunities (gift shop) and integration of the VRC with the community of Haines Junction. Further details are provided below.

Engaging Canadians: Parks Canada's Strategy for External Communications will help guide communication work during implementation of the management plan.

Park Audiences

Seven major park audiences have been defined for interpretation and outreach, based on their motivation for coming to the park and the type of activities they pursue in the park. These factors help shape the type of interpretation that will best meet their needs. The major park audiences are:

- Locals
- Day-Use/Overnight Backcountry
- Extended Backcountry Trips and Mountaineering
- Guided Trips
- Yukon-Alaska Circle Tour
- Alaska Bound
- General Public

Details on these audiences are found in Appendix B.

Major Park Messages

Key park messages will be conveyed to visitors and the public in a variety of ways. They have been updated to reflect ecological integrity, First Nation final agreements and national priorities. The goal is to have people understand and appreciate the content of these messages.

A system of protected areas deals with the park as part of a national system, the natural region it represents, the fact that the park is cooperatively managed, its designation as a World Heritage Site and the Alsek River Canadian Heritage River designation.

Ecological Integrity deals with the major messages related to ecological integrity.

A sense of place includes the park's five main interpretive themes, which are: *An Ever-Changing Dynamic Environment; Experiencing Kluane's Riches; Loss of Use, Loss of History; A Tradition of Stewardship; and Significance Beyond Boundaries.*

These major park messages are further defined in Appendix C.

Interpretation and Outreach Delivery

Visitor reception centres in Haines Junction and Tachäl Dhäl (Sheep Mountain) are the major visitor contact points serving a wide range of people, from highway drivers to mountaineers planning extended trips into the park. The visitor reception centres offer static displays and audio-visual presentations, and staff at these facilities present short talks to help orient visitors and interpret major park messages.

Guided hikes, campfire talks and other programs cover a variety of topics related to the major park messages and are presented primarily to visitors. It is important to recognize that members of the local communities are a key audience for helping to maintain ecological integrity and need to be engaged through programs tailored to their needs. Youth are also a key audience, with an emphasis on local schools.

Some initial work on First Nation cultural programs, presented by First Nation staff, has been done. Further work will increase awareness and understanding of First Nations' relationship with the park and the land, and delivery by First Nations will address concerns about cultural appropriation. It is also important to recognize and respect the current priority for the local First Nations–that education and outreach efforts related to First Nation themes be directed largely to their memberships, rather than the wider public.

Working with other communicators is also important, as park staff cannot reach all visitors through its own programs. As commercially guided trips into the park increase, it will be useful to work with operators to deliver park messages to their clients.

Highway pull-off and trailhead exhibits currently provide limited interpretive opportunities. Major roadwork is scheduled for the Alaska Highway in the coming years and the 2000 Kluane Tourism Plan suggests making the Haines and North Alaska highway driving experiences unique. These two initiatives may provide opportunities to cooperate with other governments and agencies to develop a coordinated approach to interpretation along these highways.

Outreach efforts will concentrate on program delivery to local schools and local communities. It will also focus on using the park's website and other technology as powerful tools for communicating science and 'Connecting Canadians' across the country with Kluane National Park & Reserve.

Haines Junction Visitor Reception Centre

The Visitor Reception Centre was built in 1980 to accommodate visitor reception and park administration. About 40,000 people visit the Haines Junction VRC annually. Many visitors to the region are passing through on their way to Alaska and do not realize they are travelling beside a national park. For others, KNP&R is their destination and they have come to learn about and experience the park. A 1996 visitor survey revealed that the park was the main destination for 18 percent of survey respondents, a planned stop on a longer trip for 60 percent of respondents, and an unplanned side trip taken while in the area for 22 percent of visitors. The VRC offers an essential year-round focal point for visitor contact and the delivery of key park messages.

While the current exhibits remain functional, they need to be updated to better reflect key park messages. Many other issues exist related to the VRC:

- audio-visual presentations are outdated;
- off-season and after-hour visitor needs are inadequately addressed;
- visitor reception and display space is insufficient;
- the VRC lacks a sales outlet;
- washrooms are insufficient;
- major maintenance is required;
- finding the visitor centre remains a problem; and
- the visitor centre needs to be better integrated into the community.

Additional issues and recommendations are found in the *Kluane National Park Visitor Reception Centre Recapitalization Report*, March 1999. The Haines Junction VRC will be redeveloped over several years to ensure efficient and effective delivery of park orientation and information, current and accurate key park messages, as well as offering basic visitor facilities and providing space for park administration.

Tachäl Dhäl (Sheep Mountain) Visitor Reception Centre

The Tachäl Dhäl Visitor Reception Centre, located along the Alaska Highway near the mouth of the Slims River, is open seasonally from mid-May to early September. It serves as an important day use visitor reception and overnight hiker registration centre for the north end of the park. The centre receives an average of 30,000 visitors per year.

6.3.1 Strategic Goals

Visitors, local residents and other Canadians appreciate and understand Kluane National Park & Reserve's values, its natural and cultural heritage, and the ecological issues facing the park.

Champagne and Aishihik First Nations and Kluane First Nation develop and deliver culturally based interpretation programs.

Local residents and visitors actively engage in the protection of the park's natural and cultural heritage.

6.3.2 Objectives

1. To deliver park messages directly to visitors via park staff, exhibits, park brochures, etc.
2. To involve others (e.g., teachers, guide/outfitters) in the delivery of park messages.
3. To recognize the efforts of individuals and organizations that support the park's goals and objectives.
4. To offer Canadians who do not visit the park opportunities to learn about and appreciate the park.

6.3.3 Key Actions

1. Work with CAFN and KFN to establish appropriate culturally based interpretive themes and programs with an emphasis on delivery by CAFN and KFN members. Delivery could be by First Nation park staff or on contract as part of a First Nation business.
2. Include Southern Tutchone as a third language in interpretive displays and signage in the park where the history and culture of CAFN and KFN are highlighted.
3. Identify and develop interpretation programs and products with local residents as a key audience. Examples could include presentations on park research, avalanche awareness courses and family-oriented snowmobile trips (see 6.7.8, Winter Experience).
4. Develop school programs about the park that can be incorporated into school curricula, with a focus on local schools.
5. Work with commercial operators and tour bus drivers to develop programs and products that encourage and support operators in delivering key park messages to their clients.
6. Develop and deliver an interpretation certification program for commercial guides who are willing to deliver key park messages to their clients.
7. Enhance the park's website to reach audiences that do not visit the park so they can gain an awareness of the park and the challenges faced, and learn how they can actively contribute to solutions.

8. Develop and implement methods to regularly measure the success of interpretation and outreach programs and products, and revise the programs and products as required.

9. Coordinate the redevelopment and development of roadside pull-off exhibits with the Yukon government Interpretive Signage Plan for the Alaska Highway West.

Visitor Reception Centres

10. Maintain the Haines Junction and Tachăl Dhăl (Sheep Mountain) visitor reception centres as the focal points for interpretation and presentation.
11. Continue the redevelopment of the Haines Junction VRC to ensure that key messages about the park are delivered in an effective manner, basic orientation and safety information is available 24 hours a day year-round and the delivery of information is more efficient.
12. Work with CAFN to develop a sales outlet in the Haines Junction VRC.

6.4 Current and Future First Nation Opportunities

The *Champagne and Aishihik First Nations Final Agreement* specifies economic opportunities associated with the planning and management of Kluane National Park that should benefit the Champagne and Aishihik people. The Kluane First Nation is negotiating similar economic benefits. The economic benefits related to the park identified in the *CAFN Final Agreement* include employment and training, rights of first refusal for certain contracts for park services, a share of commercial rafting opportunities and rights of first refusal for boat tours and visitor shuttle services. Existing third party activities in the park (e.g., commercial guiding, aircraft overflights, etc.) are and will be respected.

6.4.1 Strategic Goal

Economic benefits of park operations and visitor spending are increasingly flowing to First Nation members and their businesses, as reflected in the CAFN Final Agreement.

6.4.2 Objectives

1. To ensure that First Nation employee representation at Kluane National Park reflects the regional population, and that Parks Canada is seen an employer of choice by First Nation people interested in protecting and presenting their heritage.
2. To ensure that contracting provisions and aboriginal procurement policy are utilized to a greater extent so that First Nation businesses receive direct benefits of park operations.
3. To work with the developing First Nation tourism sector and First Nation governments to explore opportunities to pilot and develop culturally based tourism services, consistent with park management plan direction.

4. To explore additional First Nation economic opportunities, e.g., involvement in support of commercial filming such as guiding, etc.

6.4.3 Key Actions

1. Work with First Nation governments to ensure that employment and training opportunities with KNP&R result in the successful recruitment and retention of aboriginal employees.
2. Ensure that the potential economic benefits of new management initiatives, such as the ecological monitoring program, are considered in program design and implementation, and that they support First Nation employment.
3. Use the provisions of the *CAFN Final Agreement* and Canada's Aboriginal Procurement Policy to ensure that economic benefits of park operations through contracts are realized by First Nation members and businesses.
4. Work with CAFN to develop a sales outlet in the Haines Junction Visitor Reception Centre featuring First Nation arts, crafts and cultural information and profiling cultural tourism opportunities to visitors.
5. Ensure that, as the First Nation tourism sector develops in the region, opportunities exist for First Nation operators to enter into rafting, boat tours, shuttles and other tourism services.
6. Work with First Nation governments to ensure that cultural information resulting from research in the park is available and is used to benefit development of First Nation cultural tours. Within the area of cultural resources (Section 5.1), priority may be put on research that leads to development of cultural tourism, such as aboriginal trail systems.
7. All licenced businesses operating or interested in operating in KNP&R will be made aware of Parks Canada's obligations under the *CAFN Final Agreement* to ensure economic benefits. Businesses will be encouraged to partner with First Nation operations and to consider the importance of local purchasing and employment.

6.5 Visitor Services and Facilities

Kluane National Park & Reserve of Canada offers a wide variety of experiences and services. Every effort is made to provide fair access for a variety of visitors and reduce potential user conflicts. It is also critical that visitors receive accurate information before and during their trip so they can make informed choices. In this way, they arrive at the park with expectations matching what the park has to offer.

The Parks Canada Appropriate Activities Framework will guide the development of criteria for making decisions about the types and levels of appropriate activities in the park. These criteria will be compatible with the Ecological Integrity Protection Principles and consider impact on the environment, effects on culture and heritage, quality of experience, public safety, economic effects, equity and access, education and awareness, and level of use.

Commercial operators provide a means for a broad spectrum of people to access KNP&R for a safe and enjoyable experience. Commercial operators are valued for their work in conveying park messages, for being role models for Leave No Trace principles and practices, and for their feedback on natural resource and visitor experience concerns. Approximately 40 operators and 100 guides provide adventure services and activities including photography, mountaineering, fishing, horseback riding, day use hiking and/or van tours, backcountry hiking and rafting. There are nine licensed aircraft operators providing air support access services for backcountry hiking, rafting and mountaineering activities.

Most of the commercial operators and guide services are oriented towards trips requiring longer periods of stay and a high level of physical fitness. However, over the last few years 10 to 15 operators have provided soft adventure day use hikes and van tour activities accounting for 1,000 to 1,500 visitor days a year in the park.

Various key actions related to Visitor Services require commercial operators to provide the service e.g., making canoes and/or kayaks available for rent.

Detailed descriptions and key actions for the park's major geographic areas are found in Section 6.7 *Defining the Visitor Experience*.

6.5.1 Strategic Goals

A range of recreational and tourism services and facilities enable visitors with varying interests and abilities to enjoy the park.

New or changed recreational activities are evaluated using clear criteria that respect the park's ecological integrity and cultural heritage.

Park user fees are based on the principles of fairness and efficiency. Park users generally pay a fee for services from which they personally benefit.

6.5.2 Objectives

1. To provide a variety of year-round recreational opportunities in the park that are compatible with park values.
2. To provide visitors with opportunities for first-hand experience of KNP&R's natural and cultural heritage, including significant opportunities to experience remoteness, solitude and natural quiet in a pristine wilderness environment.
3. To improve two-way communication between Parks Canada, tourism businesses and tourism agencies.
4. To provide safe, well-maintained, accessible facilities which have a minimal impact on the environment.
5. To provide park visitors with timely, accurate information.

6.5.3 Key Actions

1. Continue to partner with others for the shared delivery of tourist information at the Haines Junction Visitor Reception Centre (VRC).
2. Maintain the Haines Junction VRC as a year-round visitor information facility.
3. Maintain the Tachäl Dhäl VRC as a seasonal visitor information facility.

4. Collaborate with tourism operators, authorities and local businesses to provide visitors with orientation to services, programs and events in the local communities and the region.
5. Work with the Yukon government, First Nations and local communities to improve visitors' "sense of arrival" at the park.
6. Redevelop and develop trailhead facilities that integrate orientation, interpretation, safety and ecosystem information at popular trails.
7. Measure visitor use, motivation and satisfaction on a regular basis.
8. Develop and implement an appropriate activities framework for the park. The framework will evaluate proposed new park activities against criteria to determine if the activity is appropriate, and define where and under what conditions the activity could take place.
9. Provide opportunities for a private operator to make canoes and/or kayaks available for rent at a few backcountry lakes (e.g., Louise, Mush, Bates and St. Elias lakes).
10. Update the Park User Fee Policy, after public consultation.
11. Use visitor surveys and current market research to evaluate if the services and facilities provided are meeting the needs of visitors.
12. Use the park's website to target and more effectively communicate with existing and potential commercial operators.
13. Meet regularly with members of the tourism industry (e.g., Tourism Yukon, Wilderness Tourism Association, Tourism Industry Association) to facilitate communication and understanding of Kluane National Park & Reserve values, goals and objectives.
14. Collaborate with Yukon government tourism officials to prepare an information and awareness guide for conducting commercial tourism operations in the park.

6.6 Recreational Use Management

Recreational use management is the direction and guidance of visitors – their numbers, behaviour and activities. Effective recreational use management provides a means to protect the park's natural and cultural resources for future generations, while allowing visitors to enjoy the high quality wilderness experiences and activities KNP&R offers. Tools for managing recreational use vary from signage and education to more active measures such as quotas, permits and closures.

Northern ecosystem productivity is low compared to southern Canada. Vegetation and wildlife have relatively low tolerance to disturbance. Recreational activities need to be managed proactively to ensure the ongoing ecological integrity of the park. In addition, many visitors come to the park to experience solitude, natural quiet and pristine wilderness. Management tools are needed to maintain and protect these experiences. As local First Nations reconnect with the park, we must ensure that subsistence and recreational use activities are compatible. A list of appropriate outdoor recreational activities in the park is found in Appendix D.

6.6.1 Strategic Goal

Visitors experience KNP&R and understand and appreciate its themes and messages without impairing its ecological integrity or cultural heritage, and in a manner compatible with subsistence activities.

6.6.2 Objective

1. To effectively manage recreational use with the guidance of the recreational use management principles and the best available natural, cultural and social scientific information.

Recreational Use Management Principles

The following principles will be used to guide recreational use management within Kluane National Park & Reserve:

- Recreational use activities must be consistent with the Ecological Integrity Protection Principles (Section 4.2). The principles state that activities be controllable, compatible and reversible. Activities must protect and maintain critical wildlife habitat, security areas and movement corridors, and key cultural resource values and sites; and wilderness visitor experiences. Where data is limited, activities are based on the principles of precaution with maintenance of ecological integrity as the first priority.
- Subsistence activities will take priority over recreational activities, and may influence recreational activities in KNP&R.
- A strategy of adaptive management will be used when applying the principles of recreational use management.
- KNP&R will be managed to provide a variety of high quality recreational experiences ranging from frontcountry services and facilities to remote backcountry areas with few, if any, services or facilities. Ecological and visitor experience goals will determine where each type of experience will be provided, the level of services and facilities offered, the degree of management controls imposed, levels of use and ease of access.
- KNP&R's wilderness backcountry areas will be managed so visitors can experience a sense of freedom, solitude, natural quiet, challenge and self-reliance. Long-standing means of travel in the park, such as horseback riding, mountaineering, hiking, cross-country skiing and rafting, will receive preference over new recreational activities, filming activities or motorized access.
- As new or modified forms of outdoor recreational activities emerge, each will be subject to a formal assessment of its appropriateness as an activity within Kluane National Park & Reserve. An environmental assessment of the activity will be a key component of the appropriateness evaluation.
- The majority of park visitors will be self-reliant and will not depend on mechanized equipment or motorized access.

- Commercial and non-profit groups will help visitors learn the skills necessary to safely enjoy the park's backcountry area through guided or outfitted trips.
- The park will use a variety of techniques for managing recreational use to ensure ecological integrity, the protection of cultural resources and high quality wilderness experiences. These include limits on group size, length of stay, number of commercial operators and aircraft landings, quotas, reservation systems and trip scheduling, use of designated campsites, routes and trails, permanent or temporary closures, Leave No Trace education and mandatory use of bear canisters.
- Scientific research and traditional knowledge will be used to guide recreational use management decisions.
- Recreational use management decisions will be proactive to prevent irreversible impacts on natural and cultural resources and visitor experiences.
- Recreational use activities must be consistent with fostering a greater understanding and appreciation of park values and interpretation themes.

6.6.3 Key Actions

1. Prohibit the following activities because they are not consistent with park values and experiences: personal motorized watercraft (seadoos), heli-skiing, heli-hiking, recreational use of ATVs, hang-gliding and extreme multi-day adventure races.
2. Continue to permit llama use under tight restrictions and continue monitoring the activity.

Rationale for Quotas and Reservation System

Considerable research has taken place in Kluane National Park & Reserve and other protected areas over the last several years that recommends or endorses the use of quotas and reservations as one option in an array of management tools to protect resources and visitor experiences. Several arguments support the basic rationale for implementing a quota and reservation system in the park:

- Prevent the displacement of bears from their critical security areas. Disturbances higher than 20 human parties per week are considered to cause significant and adverse behavioural changes in grizzly bears.
- Prevent degradation of low use areas. Since most impacts occur at low use levels, it is necessary to limit use early, while pristine undisturbed conditions still exist.
- Prevent recreational users from utilising campsites with high risk/high probability of a grizzly bear encounter. The closure of these campsites has resulted in a limited number of low risk/low probability sites. Use levels that exceed the number of safe sites will push visitors onto higher risk sites.
- Prevent conflicts between user groups seeking a wilderness experience characterized by few if any encounters with other parties. Use limits are necessary to ensure encounter levels are kept at tolerable levels. This is especially important at attraction sites such as Lowell, Dän Ƶhùr/Donjek and Kaskawulsh glaciers, where backcountry visitors frequently spend more than one night in an area because of its outstanding and unique natural beauty.
- Help ensure bear-proof food canisters are available for use at the time of trip reservation.

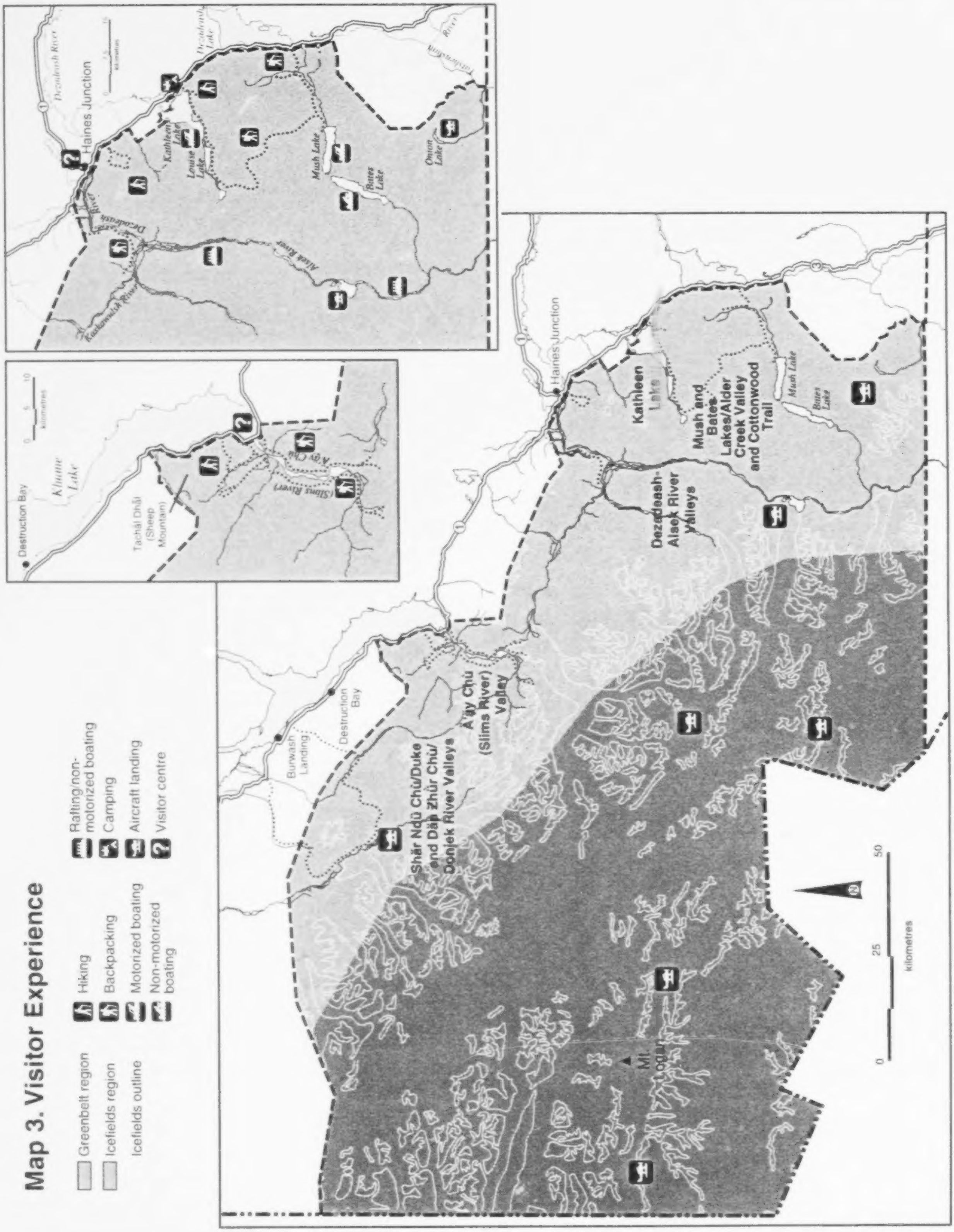
6.6.4 Key Action

1. With the involvement of commercial operators, develop a quota and reservation system for KNP&R that initially focuses on the Slims, Cottonwood, Alsek, and Dän Ƶhùr/Donjek/Shär Ndü/Duke visitor use corridors.

6.7 Defining the Visitor Experience – Area Concepts

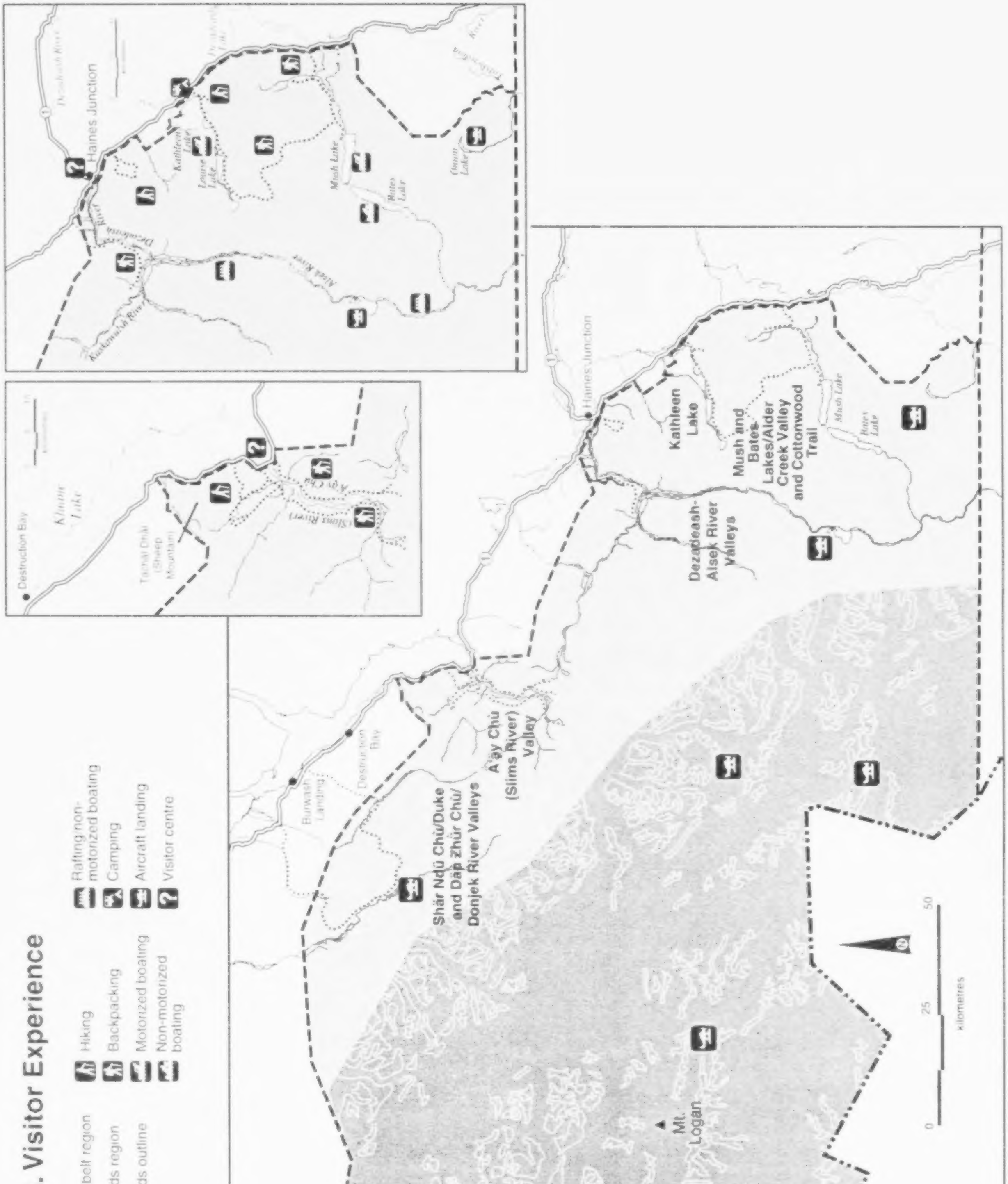
People come from all over the world to experience the park's wilderness character. Recent surveys have revealed that the most popular recreational activities in the park are hiking, viewing wildlife, visiting the visitor reception centres, fishing and photography. Flightseeing, mountaineering, rafting, skiing and vehicle-based sightseeing are also popular. Social science research has revealed that encountering untouched nature, experiencing solitude and viewing wildlife in a natural setting are important underlying motivations for people visiting the park. Spending time with family and friends is important for local residents using the park for recreation.

KNP&R averages between 1,300 and 1,600 backcountry visitors a year. Backcountry use has increased 20 percent since 1990. The park's road accessible campground at Kathleen Lake receives an average of 1,780 parties per year. Day use visitation is estimated to range between 2,000 and 3,000 people a year and growing. An estimated 1,500 visitors a year enjoy a wilderness experience through aircraft over-flights, and this number is increasing as well.



Map 3. Visitor Experience

Greenbelt region
Icefields region
Icefields outline
Hiking
Backpacking
Motorized boating
Non-motorized boating
Rafting/non-motorized boating
Camping
Aircraft landing
Visitor centre
Destruction Bay
Kluane Lake
Tachäl Dhäl (Sheep Mountain)
Ä'äy Chù (Slims River)
kilometres
0 5 10
Haines Junction
Dezadeash River
Dezadeash Lake
Kathleen Lake
Louise Lake
Mush Lake
Bates Lake
Onion Lake
Alsek River
Kaskawulsh River
Dezadeash River
Burwash Landing
Shär Ndü Chù/Duke and Dän Zhùr Chù/Donjek River Valleys
Ä'äy Chù (Slims River) Valley
Dezadeash-Alsek River Valleys
Kathleen Lake
Mush and Bates Lakes/Alder Creek Valley and Cottonwood Trail
Mt. Logan
0 25 50
kilometres
1
3



Map 3. Visitor Experience

Greenbelt region
Icefields region
Icefields outline
Hiking
Backpacking
Motorized boating
Non-motorized boating
Rafting non-motorized boating
Camping
Aircraft landing
Visitor centre
Shär Ndü Chù/Duke and Dän Zhùr Chù/Donjek River Valleys
Ä'äy Chù (Slims River) Valley
Dezadeash-Alsek River Valleys
Kathleen Lake
Mush and Bates Lakes/Alder Creek Valley and Cottonwood Trail
Mt. Logan
Haines Junction
Burwash Landing
Destruction Bay
Mush Lake
Bates Lake
0
25
50
kilometres
Kluane Lake
Tachäl Dhäl (Sheep Mountain)
Ä'äy Chù
Slims River
Kathleen Lake
Louise Lake
Onion Lake
Alsek River
Kaskawulsh River
Dezadeash River

The seven geographic areas used in the 1990 park management plan have been used to define the recreational use experiences provided in the park (Map 3). They are: Mush-Bates lakes/Alder Creek Valley, Kathleen Lake, Dezadeash-Alsek river valleys, Ä'ąy Chù (Slims River) Valley, Shär Ndü Chù/Duke and Dän Ƶhùr Chù/Donjek river valleys, the Icefields and the Highway Corridor. A Winter Experience has also been defined.

6.7.1 Mush and Bates Lakes/Alder Creek Valley and Cottonwood Trail

Prior to park establishment, the Alder Creek Valley provided access to Mush and Bates lakes in the southern end of the park. An old mining road provides access for boating, fishing and hiking in this area, although vehicle access involves fording two creeks and several mud holes. In recent years, minimal resources have been spent maintaining the road to four-wheel drive standards.

The Mush-Bates lakes corridor provides the basis for a variety of wilderness experiences, including multi-day hikes and horseback trips along the Cottonwood Trail, short day or overnight trips to Shorty Creek, and multi-day trips to Goatherd Mountain. This area is important to local residents, but existing road conditions limit access to the area. It is anticipated that subsistence activity may increase in the Mush-Bates area as First Nations reconnect with their traditional harvest areas. The Mush-Bates lakes corridor wilderness experience is one of self-reliance and self-discovery once away from the motorized access points.

The Mush-Bates lakes area receives an average of 16 overnight parties a year. This is relatively low in terms of other areas of the park. The Cottonwood Trail receives an average of 51 parties a year. Up to three commercial operators lead guided hiking, fishing and boating trips into the Mush-Bates area. Two or three operators also guide horseback and hiking trips over the Cottonwood Trail.

The major management challenge for the Mush-Bates Lakes, Alder Creek Valley and Cottonwood Trail areas is protection of the aquatic and natural resource ecosystems, while managing for compatible motorized and non-motorized recreational experiences and subsistence activities in this multiple use area of the park.

Objectives

Ecological

1. To protect and maintain the Alder Creek and Fraser Fen moose habitat and Alder Creek moose calving areas.
2. To protect and maintain the critical mountain goat habitat and resident mountain goat population on Goatherd Mountain.
3. To ensure improved access does not result in increased impact on aquatic resources through increased fishing pressure.

Visitor Experience

1. To provide a gradient of wilderness experiences within the Mush-Bates corridor characterized by motorized and non-motorized access to Mush Lake, motorized and non-motorized recreational activities on Mush Lake, and non-motorized activities on Bates Lake.
2. To minimize the potential for conflict between subsistence and recreational activities in the Mush and Bates Lake/Alder Creek Valley area.

3. To provide a wilderness experience on the Cottonwood Trail characterized by non-motorized activities; relatively few encounters with other parties; low campsite impacts; few support facilities (such as trails and signage that concentrate impacts and reduce probability of human/bear interactions); and opportunities for wildlife viewing.

Key Actions

1. Maintain the Mush Lake Road as a low grade, low volume road, to provide reliable seasonal access for four-wheel-drive vehicles.
2. Permit up to 30 hp motors on Mush Lake. To minimize noise and hydrocarbon emissions, limit boat motors to four-stroke engines only (or equivalent) by the year 2012.
3. Permit only non-motorized use by visitors on Bates Lake.
4. Designate safer campsites on the Cottonwood Trail to replace those that must be closed to reduce negative human/bear interactions.

Rationale for the Use of Clean and Quiet Technology

Environmentally, four-stroke engines are superior to their two-stroke counterparts. They produce fewer hydrocarbon emissions; have better fuel efficiency; are generally less expensive to operate; and are much quieter than two-stroke models. The use of clean quiet technology complements the wilderness values of KNP&R. Recreational activities in Kluane National Park and Reserve are required to be compatible with the wilderness nature of the park and the sensitivity of its resources. The use of cleaner and quieter four stroke engine technology moves the park forward in fulfilling its compatibility ecological integrity protection principle. Kluane National Park & Reserve will continue to take advantage of new clean quiet technology as it is developed and introduced to the marketplace.

6.7.2 Kathleen Lake

Kathleen Lake is Kluane National Park & Reserve's focal point for highway accessible water-based recreation and vehicle camping. The campground and day use areas provide easily accessible day and overnight recreation. Kathleen Lake provides an area of compatible multi-use and family oriented recreation. The past and present recreational use of Kathleen Lake, its proximity to the highway, current infrastructure and services, and the capacity of the area to sustain visitor use with minimal impacts make this area ideal for the concentrations that occur here. The existing visitor experience at Kathleen Lake is characterized by relatively high use levels, picnicking, boating, fishing, beach activities, vehicle based camping, and day and overnight hiking.

The Kathleen Lake campground receives an average of 1,780 parties per year. The King's Throne and Kathleen Lake shoreline trail are two of the more popular day use trails in the park. Several commercial operators provide guided day use hiking, fishing, kayaking and boating services at Kathleen Lake.

At the time of park establishment there were 13 cottages at Kathleen Lake in and around the current day use area. None of the cottages have ever had any form of legal land tenure and the improvements have been purchased by Parks Canada on a willing buyer/willing seller basis over the years. There are now four cottages left. Parks Canada will negotiate the purchase of these cottages as the owners indicate an interest in selling.

The major management challenge for the Kathleen Lake area is protection of the aquatic and natural resource ecosystems and managing for multi-recreational experiences in this popular area of the park.

Objectives

Ecological

1. To protect and maintain the critical grizzly habitat around Sockeye Lake.
2. To continue working collaboratively with the Yukon government to maintain and protect the Kathleen Lake aquatic ecosystem.
3. To protect and maintain the Sockeye Salmon Special Preservation Area.
4. To protect and maintain the critical winter habitat for moose around Sockeye Lake and Cottonwood Creek.

Visitor Experience

1. To provide a variety of motorized and non-motorized experiences with support facilities (signage, day use shelter, dock, hardened trails and 40-site semi-serviced campground) for people of all ages and abilities.
2. To provide opportunities for a non-motorized wilderness experience at Louise Lake.

Key Actions

1. Maintain the current range of services and facilities at existing levels.
2. Continue to acquire private cottage holdings on Kathleen Lake as they become available.

6.7.3 Dezadeash-Alsek River Valleys

The Dezadeash-Alsek river valleys offer three distinct wilderness experiences and features not accessible elsewhere in the park. In recognition of the exceptional values of this area, the Alsek was designated a Canadian Heritage River in 1986. The Dezadeash River between the Haines Junction bridge and Serpentine Creek offers a flatwater river experience through wetland habitats important for shorebirds, waterfowl, moose and grizzly bears. The Alsek Road offers four wheel drive vehicle, mountain bike and hiking experiences along the old mining road from the Alaska Highway through the Kluane Game Sanctuary and into the park. A variety of day use and overnight trips take place along the upper Alsek Valley above the Kaskawulsh River.

The Alsek River supports water-based trips of different lengths to Lowell Lake, Turnback Canyon or Dry Bay. These trips offer an exceptionally high quality wilderness experience characterized by flat to class IV+ waters, opportunities for solitude, natural quiet and self-reliance, pristine campsites and opportunities to see moose, grizzly bears, sheep, mountain goats, glaciers and icebergs. The Alsek River experience is one of self-reliance and self-discovery since no trails or facilities exist along these routes. Visitors can enjoy these recreational experiences on their own or through one of seven rafting companies.

Visitor use in the Dezadeash-Alsek River Valleys consists primarily of rafters and hikers and averages 65 parties a year. Because of the larger rafter party sizes, this relatively low number of groups actually accounts for the second highest level of person days spent in the park. The Alsek and Kaskawalsh Valleys are frequently used as aircraft access corridors to the park's Icefields.

The major management challenges in the Dezadeash-Alsek River Valleys is how to maintain the area's ecological integrity and high quality wilderness experience in light of the growing interest in operating overnight and day use river trips in the area. The scheduling of river trips, management of aircraft landings at Lowell Lake, and Icefields over-flights are issues of particular concern.

Objectives

Ecological

1. To protect and maintain the Alsek/Kaskawulsh Special Preservation Grizzly Bear Protection Area and its associated denning areas, critical habitats, security areas and movement corridors.
2. To protect and maintain critical mountain goat habitats and the resident goat population on Goatherd Mountain and the Alsek Ranges.
3. To protect and maintain the Dezadeash River wetland and shrub dominated habitats as nesting and rearing areas for shorebirds and waterfowl, particularly ducks and trumpeter swans, and as feeding areas for moose and grizzly bears.
4. To protect and maintain the wildlife and avian movement corridors between the Alsek River Valley and Shakwak Trench through Alsek Pass.

Visitor Experience

The Alsek River will be managed to maintain its existing high quality wilderness experience, characterized by opportunities for solitude, natural quiet, self-reliance, pristine campsites, lack of support facilities and opportunities to see moose, grizzly bears, sheep, mountain goats, glaciers and icebergs. Maximizing recreational use is not a management objective for the Dezadeash-Alsek River corridor.

1. To manage and provide for a variety of day and overnight recreational opportunities accessed by the Alsek Road.
2. To manage the Alsek River watershed in conjunction with the Tatshenshini-Alsek Management Board, US Parks Service and the Yukon government.
3. To provide opportunities for a high quality day use wilderness experience along the Dezadeash River between the Haines Junction bridge and Serpentine Creek, characterized by low encounter levels, pristine wetland habitats, and healthy populations of shorebirds, waterfowl, moose and grizzly bears.

Key Actions

1. Continue to manage the Alsek River as a premier wilderness rafting experience by allocating no more than 15 departures a month (departures scheduled about every second day) to private or commercial river runners.
2. Continue to establish and implement management strategies, including the Alsek River Management Guidelines, which protect the natural, cultural and recreational values of the Alsek River (also see section 9.2, Zone I).

3. From direction in the *CAFN Final Agreement*, (subject to submission of a business proposal, including an environmental assessment), a Champagne and Aishihik First Nations business will be permitted to offer a guided one-way motor supported float trip service on the Dezadeash River between Haines Junction and Serpentine Creek. The return trip will be by road.
4. Kluane National Park & Reserve will cooperate with the Yukon government and stakeholders to maintain the Alsek River road for reliable seasonal four-wheel-drive vehicle access.

6.7.4 Ä'äy Chù (Slims River) Valley

The Ä'äy Chù Valley is the KNP&R's primary backpacking and day use area in the northern end of the park. It offers a variety of relatively easy one to four day wilderness recreational hiking opportunities, allowing visitors to see and experience the park's alpine tundra, wildlife and a major valley glacier. During the June through August visitor season, the Ä'äy Chù Valley is used by numerous hikers and campers, and aircraft over-flights are common. Because of this, the opportunity to experience solitude and natural quiet is lower than other areas of the park. Campsite impacts, the presence of park staff, signs and facilities in the Ä'äy Chù Valley backcountry are relatively low.

The Ä'äy Chù Valley corridor receives an average of 250 parties a year. The most popular overnight hikes are Slims West and Slims East. The Ä'äy Chù Valley and Tachäl Dhäl area also receives an average of 738 day use parties a year. The most popular day hikes in the valley are the Sheep Creek mining road, Soldier's Summit, the Bullion Plateau trail and Bullion Creek. In terms of hiker numbers and parties, the Ä'äy Chù Valley receives the highest level of recreation use in the park. It has lower levels of total overnight use, since hikers spend less time in this area than they do in the Alsek or the Icefields. Two to three operators guide overnight hiking trips, and seven to ten companies lead day use trips in the Ä'äy Chù/Tachäl Dhäl area.

Portions of the Ä'äy Chù Valley are frequently closed during the summer. These proactive closures are usually due to the presence of grizzly bear family groups, not problem bear situations. A major review of human/bear interaction in the Ä'äy Chù Valley took place in 1997. It found that the frequency of bears obtaining non-natural food rewards and displaying human food-conditioned behaviours had decreased since the mandatory use of bear-resistant food canisters was introduced in 1988. Almost 80 percent of human/bear encounters are non-aggressive, and in 50 percent of encounters bears exhibited a disinterested response, suggesting a high degree of habituation to human activity in the valley. The review found a high incidence of encounters with family groups within the higher elevation areas of the Bullion Plateau. This research led to the closure of the Bullion Plateau to overnight camping in 1998.

The 1997 study evaluated the level of human impact on grizzly bears along the Ä'äy Chù Valley corridor and recognized that the Slims East and West overnight hiking routes concentrated recreational use along both sides of the valley, potentially affecting wildlife feeding and movement corridors on both sides of the river. The report recommended consideration of closure or seasonal use restrictions to half of the valley (e.g., Slims East). This was deemed the most ecologically sound management direction to provide bears opportunities to use the Ä'äy Chù (Slims Valley) without human disturbance (at least until core security areas for grizzly bears in the Slims can be outlined).

Challenges facing park managers in the Ä'äy Chù Valley area include how to maintain the area's ecological integrity in light of the relatively high use levels and how to minimize campground crowding when there are a limited number of low risk grizzly bear encounter campsites. As visitor use continues to increase, managers must balance the needs of wilderness hikers with those of the resource and of aircraft over-flight visitors.

Objectives

Ecological

1. To protect and maintain the Bullion Creek dunes, Ä'äy Chù delta, and Tachäl Dhâl (Sheep Mountain) loess steppes Special Preservation Areas.
2. To protect and maintain the Sheep-Bullion Plateau critical grizzly bear habitat, family group security areas, and associated movement corridors to and from this area.
3. To protect and maintain the critical wildlife habitat, breeding areas and associated movement corridors for Dall's sheep, mountain goats, golden eagles and grizzly bears in the Ä'äy Chù Valley.

Visitor Experience

The Ä'äy Chù Valley recreational wilderness experience will be characterized by modest encounter levels with other parties and campsite and trail conditions with relatively low impact levels. Support facilities such as trails and signage will be provided to concentrate impacts and/or to reduce probability of human/bear interactions, and provide opportunities to see and experience alpine vegetation, a valley glacier and wildlife.

Key Actions

1. Designate campsites in the Ä'äy Chù Valley to help reduce negative human/bear interactions.
2. Evaluate alternative measures of protection (such as closure of one side of the valley or alternate hiking areas) if designated campsites, conversion of routes to trails, quotas and reservations, and continued proactive seasonal temporary closures do not adequately address bear management issues in the Ä'äy Chù Valley.

6.7.5 Shär Ndü Chù/Duke and Dän Ƶhùr Chù/ Donjek River Valleys

The Shär Ndü/Duke and Dän Ƶhùr Chù/Donjek river valleys area provides a high quality wilderness hiking experience in the north end of the park. This unique recreational experience is characterized by pristine undeveloped campsites, outstanding opportunities for solitude, natural quiet and self-reliance, wildlife and glacier viewing, and few if any park facilities. Because of its remoteness, recreational access is sometimes provided by aircraft. Aircraft landings are controlled and limited to a maximum of one landing every second day to prevent conflicts with other backcountry travellers. Public consultation during the plan review indicated a desire for a wheeled landing site in the vicinity of Big Horn Lake as an alternative to landing on the lake.

The Dän Ƶhùr/Donjek, Shär Ndü/Duke, Burwash Uplands and other northern areas of KNP&R receive an average of 49 parties a year. Averaging 27 parties a year, the Dän Ƶhùr/Donjek route accounts for half of the use in the north end of the park. There are three to six commercial operators advertising and running guided backcountry trips into the Shär Ndü/Duke, Dän Ƶhùr/Donjek and Burwash Uplands area.

The management challenge for the Shär Ndü/Duke and Dän Ƶhùr/Donjek area is to preserve this pristine setting in a manner that maintains its exceptional wilderness recreational experience and undisturbed ecosystems, wildlife populations, movement corridors and security areas. The pending Kluane First Nation land claim settlement could change the way this area of the park is managed.

Objectives

Ecological

1. To protect and maintain the critical grizzly bear habitat and associated movement corridors in the Dän Ƶhùr Chù/Donjek River Valley to Alaska Highway area.
2. To protect and maintain the critical Dall's sheep habitat and associated movement corridors in the Mt. Hoge, Dän Ƶhùr/Donjek, Steele Creek and Burwash Uplands areas.
3. To protect and maintain the critical moose and golden eagle habitats and associated movement corridors in the Dän Ƶhùr/Donjek, Upper Shär Ndü/Duke and Burwash Uplands areas.
4. To protect and maintain the assemblage of rare plant and animal communities associated with the Steele Creek Alpine, Mt. Hoge, Dän Ƶhùr/Donjek Valley and Shär Ndü Chù/Duke River Headwaters Special Preservation Areas.

Visitor Experience

1. To manage and protect the outstanding recreational wilderness experience of the Shär Ndü/Duke and Dän Ƶhùr Chù/Donjek rivers area, characterized by pristine undeveloped campsites, outstanding opportunities for solitude and natural quiet, wildlife and glacier viewing and few if any park facilities.

Key Actions

1. Recreational use management tools will be implemented to help maintain ecological integrity and wilderness experiences. These include concentrating use on existing hiking routes and travel corridors, limiting the time a party may spend at the Donjek Glacier, having parties move away from the Big Horn landing site the same day they land and scheduling Big Horn aircraft landings in advance and on alternating days.
2. Investigate whether an alternative wheeled landing site can be found in the immediate vicinity of Big Horn Lake.

6.7.6 The Icefields

The Icefields, in the heart of the park, offers world-class mountaineering and ski-touring opportunities in a pristine wilderness setting that provides opportunities for solitude, natural quiet, personal challenge and self-discovery. Wilderness character is an important part of the current mountaineering experience. The 1996 Kluane Wilderness Study found that one third of the mountaineering respondents had also considered climbing Denali in Alaska, and that 55 percent of those chose KNP&R over Denali because the latter was too crowded.

Access to the Icefields is generally provided by aircraft because of the remoteness and distances involved. Icefields aircraft over-flights enable many day users to experience the Icefields and see Canada's highest mountains and the network of massive valley-bound glaciers. A commercial temporary tent camp, currently provides an Icefields-based wilderness experience to visitors without extensive mountaineering skills. Day and overnight visits to the camp are provided. Experienced mountaineers can base out of the tent camp to run extended ski touring expeditions.

The Icefields area receives some of the highest levels of overnight use in the park, with an average of 2,718 person days and 42 parties a year. Several of the mountaineering trips are organized and led by certified commercial mountain guide operators. A local aircraft operator estimates that over 1,500 people per year receive an Icefields experience through aircraft over-flights. The aircraft operators are generally based out of Haines Junction, Kluane Lake, Destruction Bay and Mile 1118. During the main visitor season they average two or three flights a day into the Icefields.

During the current management plan review there was public support for designating one or two multiple operator day use aircraft landing sites in the Icefields, and for permitting additional temporary Icefields tent camps. These new opportunities would facilitate a first-hand glacier viewing experience characterized by natural quiet and no sign of human use. Support for additional aircraft access into the park was contingent on limiting aircraft noise, limiting the number of daily flights into the Icefields day use and tent camp areas, and ensuring that some popular areas remain free of commercial ventures. The film industry also requested pre-approval of a designated Icefields landing site for filming that would not impact recreational users or wildlife.

The management challenge associated with the Icefields is managing aircraft access and recreational use while preserving and protecting the park's ecological integrity, wilderness character and visitor experiences within the Icefields and greenbelt corridors used for access.

Objectives

Ecological

1. To protect and maintain the unique plant and animal communities associated with the nunataks in the Icefields, in particular the Logan Nunatak Special Preservation Area.
2. To protect and maintain the critical habitats, security areas, wildlife and wildlife movement corridors in the greenbelt valleys used for aircraft access to the Icefields.

Visitor Experience

1. To enhance opportunities for a first-hand day use glacier viewing wilderness experience characterized by solitude, natural quiet and little or no sign of human use.
2. To provide a variety of Icefields-based mountaineering and ski touring wilderness experiences characterized by opportunities for solitude, natural quiet, extreme/intense physical challenge, self-reliance/self-rescue and limited signs of human use.

Key Actions

1. Kluane National Park & Reserve will work with aircraft operators to identify and designate one or two multiple operator day use landing sites in the Icefields, on ice, subject to guidelines that detail the maximum number of daily landings, flight access

routes and landing schedule. The guidelines will ensure that this new activity is consistent with the ecological integrity protection and recreational use management principles.

2. One additional seasonal tent camp will be permitted in the Icefields, subject to submission and approval of a business plan proposal and an environmental assessment.
3. KNP&R will work in collaboration with the film industry to identify a pre-approved landing area in the Icefields for filming activities. Individual proposals for use of this landing area will continue to be subject to environmental assessment approval.

6.7.7 Highway Corridor

The highway corridor through the Kluane Region bordering KNP&R is one of the most scenic vehicle-based wilderness experiences in the Yukon. The highway corridor is serviced by a variety of highway and community-based visitor services and facilities and commercial, Yukon government and Parks Canada campgrounds. The experience is characterized by scenery and wildlife viewing, highway pull-offs and interpretive panels, community-based Yukon government, First Nations, and Parks Canada visitor reception centres and natural, historical and cultural attractions. Highway travellers can learn more about KNP&R and the surrounding region at the Haines Junction and Sheep Mountain visitor reception centres, roadside exhibits or on one of several short self-guided trails along the highway.

The 1999 Visitor Exit Survey conducted by the Yukon government revealed that 128,795 visitors passed through the Kluane Region highway corridor and over 92,500 of these visitors stopped in the area. Along the highway, KNP&R maintains over 50 km of hiking trails, the Kathleen Lake campground and day use facility, and the Haines Junction and Sheep Mountain visitor reception centres.

Most of the lands lying within the Kluane Region highway corridor are not managed by KNP&R. Therefore, the park works in cooperation with other government agencies, Champagne and Aishihik First Nations and Kluane First Nation, municipal governments and the private sector to provide for a variety of high quality recreational experiences along the highway. The concept of a parkway driving experience from Haines, Alaska to Haines Junction is discussed in the Kluane Tourism Plan as a way of enhancing the driving experience through this spectacular area. This provides an opportunity for various agencies, including Parks Canada, to work together and convey a variety of messages.

Several key actions for the highway corridor are found in the Interpretation and Outreach (6.3) and Visitor Services and Facilities (6.5) sections of this management plan.

Objectives

Visitor Experience

1. To provide highway corridor travellers with information that makes them aware of the visitor opportunities in the park.
2. To ensure that highway drivers are aware they are travelling beside KNP&R and have a pleasurable and educational experience.

Key Actions

1. Collaborate with Yukon Tourism, CAFN and others to explore the concept of a parkway driving experience along the Haines Highway.

6.7.8 Winter Experience

During the winter, KNP&R offers wilderness recreational experiences characterized by outstanding opportunities for solitude and quiet in a natural setting where wildlife is largely undisturbed by human influences. This high level of protection comes at a time when wildlife have lower energy reserves, making them more vulnerable to disturbance.

KNP&R's winter recreational experiences are achieved primarily through day use cross-country skiing on the Dezadeash, St. Elias, Auriol and Kathleen Lake track set ski trails (totalling 36 km in length), ice-fishing at Kathleen Lake, and a limited amount of overnight skiing and dogsled trips. At present, most winter park users are local residents, but there is potential for increased winter tourism.

In comparison to summer, very few recreational visitors use the park in winter. Because of its proximity to Haines Junction, five to ten people a day ski the Dezadeash River trail throughout the winter. From mid-February to early April from ten to 30 parties a weekend use the Auriol Trail, Kathleen Lake and St. Elias areas. Overnight backcountry winter use ranges from five to ten trips a year.

During the winter, the major management challenge is protecting KNP&R's vulnerable wildlife populations.

Building Bridges

Among many residents, interest in winter access into the park is a common theme. Long-term residents consider the loss of motorized access that existed prior to park establishment an unjustified impact. As a result of public consultation, it has been decided, on a trial basis, to offer a motorized access opportunity that has not existed since park establishment. Due to sensitivities around this activity, it will be limited to no more than two events per year.

One or two park-sanctioned and controlled snowmobile trips per year will be planned. The trips will be family or youth orientated, targeted to the region's residents, with the intended benefit being greater understanding and support of the park and its management through personal experiences in the park.

Because of the publicly expressed concern regarding the appropriateness of providing additional snowmobile access into the park, the benefits and impacts of the snowmobile events will be closely monitored. An environmental assessment will be required prior to approval. These trips will be evaluated to ensure they do not impair the park's ecological integrity and that they meet the specific park management objectives to provide an educational awareness and outreach opportunity for local residents to learn about and discuss management issues related to KNP&R.

Objectives

Ecological

1. Because wildlife are under higher levels of natural stress during the winter, KNP&R will be more cautious and rigorous in the application of the recreational use management principles and strategies used to fulfill the ecological objectives listed under the seven geographical areas of the park. Of particular importance will be the protection and maintenance of key wildlife winter range, such as the critical wintering habitat for moose around Sockeye Lake, Cottonwood Creek and Alder Creek flats, and minimizing recreational use disturbance of wildlife on their winter range.

Visitor Experience

1. To provide winter recreational experiences characterized by outstanding opportunities for solitude and natural quiet, and wildlife largely undisturbed by human influences.
2. To provide an educational awareness and outreach opportunity for local residents to learn about and discuss management issues related to KNP&R.

Key Actions

1. Encourage frontcountry cross-country skiing by regularly track setting the Dezadeash River, Auriol, Kathleen Lake and St. Elias ski trails in partnership with others.
2. Encourage backcountry ski touring opportunities by packing the Cottonwood Trail one or two times a season after the snow has settled in the spring.
3. Use of snowmobiles on the surface of Kathleen Lake will be allowed to facilitate a winter park experience.
4. Use of snowmobiles will be allowed along the abandoned pipeline right-of-way between Haines Junction and Dezadeash Lake, to provide access to Kathleen Lake and provide a transportation corridor to Dezadeash Lake.
5. One to two park-sanctioned snowmobile trips may be held annually, targeted to the region's residents.
6. Seasonal tent camps for winter use may be introduced, but this is subject to demand, interest of potential partners and environmental assessments.
7. Develop guidelines for dogsled use in cooperation with guides.

6.8 Trails and Routes

About 200 km of trails and 400 km of recognized hiking routes are found in KNP&R. Trails are generally well defined, with signs, posts, trailheads and obvious walking surfaces. The majority of the existing trail system in KNP&R is based on old mining roads and trails built prior to park establishment in the early 1970s. The trails range from easy 20 minute walks to more difficult five to six day hikes. Some trails, such as the Cottonwood, have become more difficult in recent years because of bridge washouts, campsite closures and changes to designated campsites.

In contrast to trails, routes typically follow no set path and are not maintained by the park. They follow streambeds and river channels, alpine meadows and ridgelines, game trails, and occasionally old mining roads. Routes are generally long and challenging. Proper trip planning involves matching the fitness levels, skills and abilities of hikers with a trail or route that does not exceed their limits.

Public consultation showed support for additional trail development if they can be constructed in a manner that does not impair the park's ecological integrity. New routes are continuously being discovered by adventurous hikers exploring and travelling into areas of KNP&R that currently receive little if any hiker use. Guidebooks with new hiking route descriptions are introducing more hikers into these low use areas of the park. This presents a management challenge since grizzly bear research indicates that the park's low use areas provide important security areas for grizzly bear family groups. Research suggests that exclusion of family groups from remote alpine habitat may exacerbate the already high natural cub mortality rates in the park.

The desire for improving trail development in KNP&R in a manner that does not impair the park's ecological integrity will be guided by the following management principles:

- Focus potential trail development and any improvements on existing trails or routes (e.g., investigate the economic and environmental feasibility of finding and locating an additional one or two overnight hiking routes off the Auriol, Shorty Creek or Alsek Valley trails).
- To ensure resource protection, public safety, and visitor enjoyment, convert existing hiking routes to trail status (with more services, facilities, and maintenance) as increasing hiker traffic warrants it (e.g., convert Slims East to trail status).
- Inform hikers in advance of the higher skill and ability levels required by KNP&R's hiking routes. In contrast to trail hikers, limited route finding or trip information will be provided to hikers travelling on routes in the park; self-reliance will be a necessity.

6.9 Air Access

Aircraft access is generally not permitted in national parks except where reasonable alternatives do not exist, where it has been authorized through the management planning process, and under strict controls designating landing sites, times, flight lines, altitudes and/or other special conditions related to resource protection or visitor enjoyment. The 1990 park management plan recognized aircraft access as an effective means to facilitate greater access into remote areas of the park for extended overnight trips.

There are currently seven designated landing sites located within KNP&R that support extended backcountry hiking, rafting and mountaineering trips. Four are located within the Icefields and three within the greenbelt area. At greenbelt landing sites, landings are scheduled in advance with a maximum of one party being provided access in or out of the area every second day. As aircraft are intended to support extended overnight trips, visitors can fly in or out of a greenbelt landing site, not both. This minimizes natural and cultural resource disturbance, and provides opportunities for solitude, natural quiet and remoteness. To reduce wildlife and visitor experience disturbances, aircraft access flights follow routes that are well above the ground or mountain slopes, and spend only as much time as is safely needed at altitudes close to the ground when dropping off or picking up passengers. It is recognized that Parks Canada has limited control over the airspace in the park, but staff will work with pilots to seek voluntary compliance of guidelines.

The management challenge associated with aircraft access into KNP&R is to ensure aircraft activities do not impair ecological integrity or wilderness experiences. During management plan consultations, the public did not support day use landings in greenbelt areas.

6.9.1 Objective

To ensure aircraft access activities do not impair KNP&R's ecological integrity and visitor experiences.

6.9.2 Key Actions

1. Day use aircraft landings outside the Icefields will not be permitted.
2. Parks Canada will work in collaboration with aircraft operators to develop an aircraft operator code of ethics that aims to protect ecological integrity and wilderness visitor experiences.

6.10 Visitor Use and Impact Monitoring

The chapter A Place for Nature identifies a range of ecological integrity indicators and standards to help managers determine if impacts associated with recreational use and development levels are impairing the park's ecological integrity. Most of these targets apply to the landscape level of use and development. More information (amount of use and associated impacts) is required on day use activities in the park.

Since 1996, Kluane National Park & Reserve has carried out research at the campsite and visitor experience level to determine how recreational use has affected campsite impacts, opportunities for solitude and natural quiet, and wilderness experience satisfaction. The methodology was based on well-established research protocols. Perception of campsites and campsite condition class ratings are used to determine whether backcountry campsites remain in pristine condition with low impact levels. The condition class rating is determined by evaluating a variety of impact parameters, including the amount of bare ground, presence of litter or human waste, soil compaction, social trails and campfire rings. The lower the condition class rating, the more pristine and undisturbed the campsite.

Opportunities for solitude and natural quiet are evaluated through social science constructs that measure the number of aircraft heard and tolerated, and the number of trail and/or campsite encounters with other parties. The higher the encounter level, the lower the opportunity to experience solitude and natural quiet. Visitor surveys are used to determine whether people are achieving a high quality wilderness experience.

The visitor use and impact monitoring research has enabled KNP&R to identify indicators and targets to determine if recreational use has been kept within acceptable levels so as not to impair the wilderness experience people are seeking. Indicators and targets have been established for each of the major visitor use corridors in the park. An example of the targets and indicators for the Alsek River (a lower use corridor) and the Ä'äy Chü (Slims River) Valley (a higher use corridor) are listed below.

Alsek River: Visitor use and impact monitoring targets:

Alsek River travellers report having no more than one encounter with other groups every second day, and hearing no more than three aircraft every two days;

- more than 80 percent of random river campsites are barely to not perceptible;
- more than 80 percent of river campsites score a condition class rating of 12 or less; and
- more than 85 percent of river travellers report having a near or total wilderness experience.

Ä'ą̈y Chü (Slims River) Valley: Visitor use and impact monitoring targets:

- on average, hikers do not encounter more than five other parties on the trail, and three other parties at campsites;
- no more than one campsite per trail has a condition class rating greater than 10; and
- more than 80 percent of hikers report having a near or total wilderness experience.

A complete list of the visitor use and impact monitoring indicators and targets can be found in Appendix E.

6.10.1 Objectives

1. To ensure that the wilderness experiences people are seeking in the park are protected and maintained.
2. To monitor the effectiveness of the recreation use management tools (e.g., quotas and reservations) used to provide high quality wilderness experiences in KNP&R.

6.10.2 Key Actions

1. Continue visitor use and impact monitoring and research on the current five-year cycle.
2. Continue to monitor overnight recreational use (total use, person days and number of hiking parties) along trails and routes as one measure of the cumulative effects of recreational use and development.

6.11 Public Safety and Law Enforcement

Public Safety

In a mountainous national park like KNP&R, public safety is a primary concern. Public safety must be a shared responsibility. Visitors must take precautions that reflect the risk involved in their chosen activity. This requires knowledge of natural hazards, proper equipment and provisions, adequate skill and fitness, and the ability to cope with emergencies. Generally, more effort will be made to protect visitors in higher use areas. Visitors to wilderness areas will be expected to accept more responsibility for their safety.

Law Enforcement

Parks Canada's responsibilities for enforcement centres mainly on the provisions of the *Canada National Parks Act* and the National Parks Regulations pertaining to resource conservation and public order. In conjunction with management strategies arising from applicable land claim agreements, this helps ensure that the park's ecological integrity is maintained, cultural resources are protected and First Nation rights are safeguarded.

6.11.1 Strategic Goals

The park's public safety program is based on prevention, readiness, response and shared responsibility.

Park resources are protected and public peace is maintained based on the provisions of the Canada National Parks Act, National Park Regulations, Champagne and Aishihik First Nations Final Agreement *and other applicable legislation.*

6.11.2 Objectives

1. To provide a public safety program for the park based on the principle of encouraging self-sufficiency and self-rescue by visitors, offering good information to the public, and, in the event of an emergency, providing search and rescue service.
2. To provide a public safety program that recognizes and takes into account different activities that may be pursued by visitors and subsistence users.
3. To carry out law enforcement responsibilities pertaining to resource protection.

6.11.3 Key Actions

1. Increase the effectiveness of the park's public safety and law enforcement programs by providing appropriate messages to park users at trailheads, in park information publications and at visitor reception centres.
2. Maintain current Public Safety and Law Enforcement Plans.
3. Improve warden skills in public safety and their ability to ensure that the *Canada National Parks Act* and applicable regulations are followed, and increase their presence within the park.
4. Work with neighbouring agencies and governments such as Wrangell–St. Elias National Park and Preserve, Glacier Bay National Park and Preserve, Tatshenshini–Alsek Park, RCMP, Yukon government, Champagne and Aishihik First Nations and the Kluane First Nation on law enforcement and public safety programs.

Partnerships
and
Public Involvement

Recreational Opportunities Working Group meeting

Sarah Gaunt

7.0 PARTNERSHIPS AND PUBLIC INVOLVEMENT

7.1 International and National Cooperation

International Cooperation

Kluane National Park & Reserve of Canada is part of a World Heritage Site. The World Heritage Convention is a United Nations agreement, endorsed by more than 100 countries, that recognizes the importance of protecting examples of the world's cultural and natural heritage. The convention states that the significance of these heritage resources transcends national boundaries and should be preserved for future generations.

Kluane National Park & Reserve and the adjoining Wrangell–St. Elias National Monument in Alaska were jointly nominated to the World Heritage List in 1979. Since that time, Glacier Bay National Park and Preserve (Alaska) and Tatshenshini–Alsek Park (British Columbia) have been added to the Site, creating the Kluane/Wrangell–St. Elias/Glacier Bay/Tatshenshini–Alsek World Heritage Site. The qualities that led to the initial nomination were "an unbroken, pristine natural system with a rich variety of vegetation patterns and ecosystems, a wealth of wildlife populations including grizzly bears, Dall's sheep (the largest single concentration in the world), and a number of rare plant communities. They also contain the largest non-polar icefield in the world and some of the world's most spectacular glaciers" (from the World Heritage Site plaque).

In 1998, a five-year Memorandum of Understanding was signed between the US National Park Service and Parks Canada on cooperation in management, research, protection, conservation and presentation of national parks and historic sites. The Kluane/Wrangell–St. Elias/Glacier Bay/Tatshenshini–Alsek World Heritage Site is listed as one of 12 priority areas for possible collaboration. Potential areas for collaboration include: developing staff training and exchanges; building inter-agency networks of biologists, planners, visitor services and interpretation staff; formalizing the international management of the Tatshenshini and Alsek rivers; developing a common base map for the four parks; seeking a moratorium on the forest clearing of the international boundary in these parks; and updating the World Heritage Site plaques, including seeking a common name for the World Heritage Site.

Canadian Heritage River

The Canadian Heritage Rivers System is Canada's national program for freshwater heritage conservation. It is a cooperative program between the governments of Canada and all ten provinces and three territories. The objectives of the program are to give national recognition to Canada's outstanding rivers and to ensure long-term management that will conserve their natural, historical and recreational values for the benefit and enjoyment of Canadians, now and in the future.

The Alsek River was one of the first rivers to be designated (1986). Initially designated for its natural values, the river has since become a world-class wilderness rafting river and its cultural values have become more widely recognized. The river's natural, recreational and cultural values are all reflected in the strategic goals and key actions.

7.1.1 Strategic Goals

The natural values that led to the inscription of Kluane/Wrangell–St. Elias/Glacier Bay/Tatshenshini–Alsek as a World Heritage Site are safeguarded and understood.

The natural values that led to the nomination of the Alsek River as a Canadian Heritage River and the river's cultural and recreational values are safeguarded and understood.

7.1.2 Objectives

1. To fulfil the responsibilities related to the park being part of a World Heritage Site, and having within it a Canadian Heritage River.
2. To pursue cooperative efforts between KNP&R and Wrangell – St. Elias National Park and Preserve and Glacier Bay National Park and Preserve that further the efforts of the protected areas.

7.1.3 Key Actions

1. Use this plan as the management plan for KNP&R as a World Heritage Site.
2. Recognizing the Memorandum of Understanding between the US National Park Service and Parks Canada signed in May 1998, pursue cooperative efforts between KNP&R and Wrangell-St. Elias National Park and Preserve and Glacier Bay National Park and Preserve which further the efforts of the protected areas.
3. Use this plan and the Alsek River Management Guidelines as the management plan for the Alsek River as a Canadian Heritage River.
4. Ensure that the water quality of the Alsek River exceeds federal water quality guidelines.
5. Increase awareness of the natural, cultural and recreational values of the Alsek River.

7.2 Public Involvement

A variety of forms of public consultation were undertaken as part of the management plan review, and organizations and individuals expressed interest in continued public involvement during plan implementation. A major role of the Kluane National Park Management Board is providing members of the public opportunities for ongoing input into park management. Parks Canada will produce an annual report on the implementation of the management plan and the Board will coordinate an annual public forum. The principles of adaptive management will be used to make adjustments as required to plan implementation.

7.2.1 Strategic Goal

Key decisions affecting the park are made in a timely and fair manner and involve public consultation.

7.2.2 Objective

1. To ensure that KNP&R is accountable to the public.

7.2.3 Key Actions

1. Engage stakeholders and the public during the implementation of the park management plan, including an annual report by Parks Canada and a public forum coordinated by the Kluane National Park Management Board.
2. Consult with the public and stakeholders on major new initiatives.

Administration and Operations

Interpretive hike on King's Throne Trail

8.0 ADMINISTRATION AND OPERATIONS

8.1 Environmental Stewardship

The Government of Canada is committed to the concept of environmental stewardship. This ensures that every government department meets or exceeds environmental laws and regulations, follows best environmental practices, and develops and implements a sound environmental management system. Many of the government's commitments to the *Greening of Government Operations* have been formalized in amendments to the *Auditor*

General's Act and with the appointment of the Commissioner of the Environment and Sustainable Development. Parks Canada must now report to Parliament on its progress in fulfilling its environmental responsibilities.

An environmental management system (EMS) helps organizations and businesses apply environmental stewardship considerations to every business decision. It ensures that the greatest environmental risks receive the highest priority. Parks Canada has developed an EMS in an effort to provide a structured and consistent method for reducing the impact of its operations on the environment.

A National Environmental Management Systems Framework targets 14 environmental aspects:

- polychlorinated biphenyls
- ozone depleting substances
- petroleum storage tanks
- pesticides
- hazardous material management
- contaminated sites
- air emissions
- fleet management
- other transport and equipment
- energy conservation
- solid waste management
- wastewater management
- water conservation
- green procurement

The EMS Framework sets the goals and targets by which each park will manage its respective environmental priorities.

In conjunction with other Parks Canada sites in the Yukon Field Unit, KNP&R has recently completed an EMS Action Plan that will be implemented during the life of this management plan. Key areas for KNP&R include petroleum storage tanks, contaminated sites, energy conservation and green procurement.

8.1.1 Strategic Goals

Parks Canada demonstrates sound environmental practices in all of its activities, services and products.

Environmental stewardship is fundamental to the operation of all businesses in the park.

Park users contribute to the principles of environmental stewardship and sustainability.

8.1.2 Objective

1. To adopt environmentally sound practices in the management of all operations and work continuously to improve environmental performance.

8.1.3 Key Actions

1. Implement an environmental management system for the park that emphasizes the use of environmentally friendly products.

2. Demonstrate environmental leadership by communicating the park's environmental performance to stakeholders and the people of Canada.
3. Work with visitors, tenants, service providers, adjacent land-owners and other stakeholders to encourage high environmental standards in their operations.
4. Inform park users so they can make environmentally responsible choices.

8.2 Operations

The park administration offices are housed within the Haines Junction Visitor Reception Centre. The Warden Office and Park Maintenance Compound are two km west of Haines Junction. Ongoing review of park operations will ensure that the existing facilities and infrastructure meet the needs of park operations.

Park buildings range from close to 50 percent in poor condition to 20 percent in good condition and largely represent an aging infrastructure. No major new operational infrastructure is projected during the life of this plan. Recapitalization and maintenance will be the focus, concentrating on improvements in the energy efficiency of park buildings. For details on the Haines Junction Visitor Reception Centre recapitalization see Section 6.3.

Various legislation and policies provide direction on assessing environmental impacts and reporting on the park's ecological integrity. These processes will be implemented and reports written as directed.

8.2.1 Strategic Goal

Fundamental accountabilities and operational efficiencies are applied to the administration and operation of the park.

8.2.2 Key Actions

1. Use the new 5-year *State of the Park Report* and Parks Canada's national biennial *State of Protected Heritage Areas Report* to report on the state of the park's ecological integrity.
2. Use the *Canadian Environmental Assessment Act*, and the *Yukon Environmental and Socio-economic Assessment Act* (*YESAA*), when it comes into effect, to assess the environmental impacts of projects before they are undertaken.
3. Review current park operations facilities and infrastructure, including staff housing and warden cabins, to ensure that the facilities meet the long-term needs of park operations and administration.

Park Zoning and Wilderness Area Declaration

Vittorio Sella

Mountaineer camp on Malaspina Glacier during the 1897 first ascent of Mt. St. Elias

9.0 PARK ZONING AND WILDERNESS AREA DECLARATION

9.1 National Park Zoning System

The national park zoning system classifies areas according to their need for protection. The suitability of areas for visitor activities is also a consideration in zoning decisions. The system's five categories are described in *Parks Canada Guiding Principles and Operational Policies*. Kluane National Park & Reserve contains Zone I to Zone IV areas (Map 4). The zoning system does not preclude resource harvesting activities and subsistence use by the Champagne and Aishihik First Nations and the Kluane First Nation. The three No Harvest Zones related to resource harvest are discussed in Section 6.1.

9.2 Zone I - Special Preservation (14% of the park)

Zone I lands deserve special preservation because they contain or support unique, threatened or endangered natural or cultural features, or are among the best examples of the features that represent a natural region. Preservation is the key consideration. Motorized access is not permitted. This plan identifies 13 Zone I areas that were also in the 1990 park management plan. Modifications from 1990 are: an upslope expansion of the Alsek/Kaskawulsh Grizzly Bear Protection Area, reflecting recent research outcomes on bear behaviour, denning sites and a marginally stable grizzly bear population; and changing the Alsek River water surface within the Alsek/Kaskawulsh Grizzly Bear Protection Area from Zone III to Zone I to match the zoning of the surrounding land base.

Zone I areas:

- Logan Nunatak
- Steele Creek Alpine
- Mt. Hoge/Dän Ƶhùr/Donjek Valley
- Shär Ndü Chù/Duke River Headwaters
- Bullion Creek Dunes
- Tachàl Dhäl (Sheep Mountain)
- Ä'ąy Chù (Slims River) Delta
- Alsek/Kaskawulsh Grizzly Bear Protection Area
- Goatherd Mountain
- Lower Alsek River
- Sockeye Lake and River
- Fraser Creek Fen
- Airdrop Lake/Hoodoo Mountain Archaeological Sites (not shown on Map 4)

Descriptions of the Zone I areas are found in Appendix F.

9.3 Zone II - Wilderness (85% of the park) and Wilderness Area Declaration

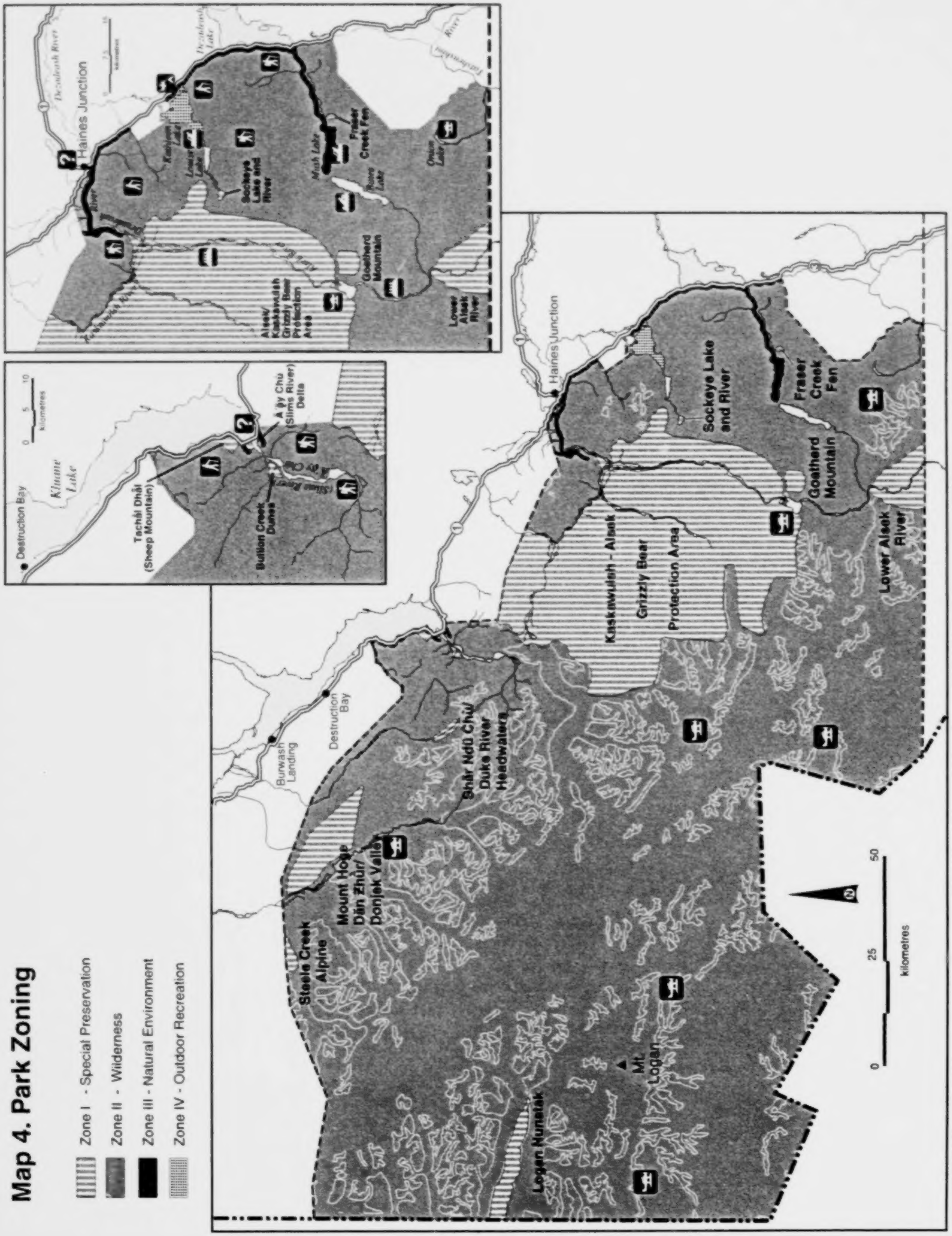
Zone II

Zone II contains extensive areas that are good representations of a natural region and are conserved in a wilderness state. The perpetuation of ecosystems with minimal human interference is the key consideration. Zone II areas offer opportunities for visitors to experience first-hand the park's ecosystems and require few, if any, rudimentary services and facilities. In much of Zone II, visitors have the opportunity to experience remoteness and solitude. Motorized access is not permitted except for strictly controlled air access in remote areas.

Modifications from the 1990 plan are:

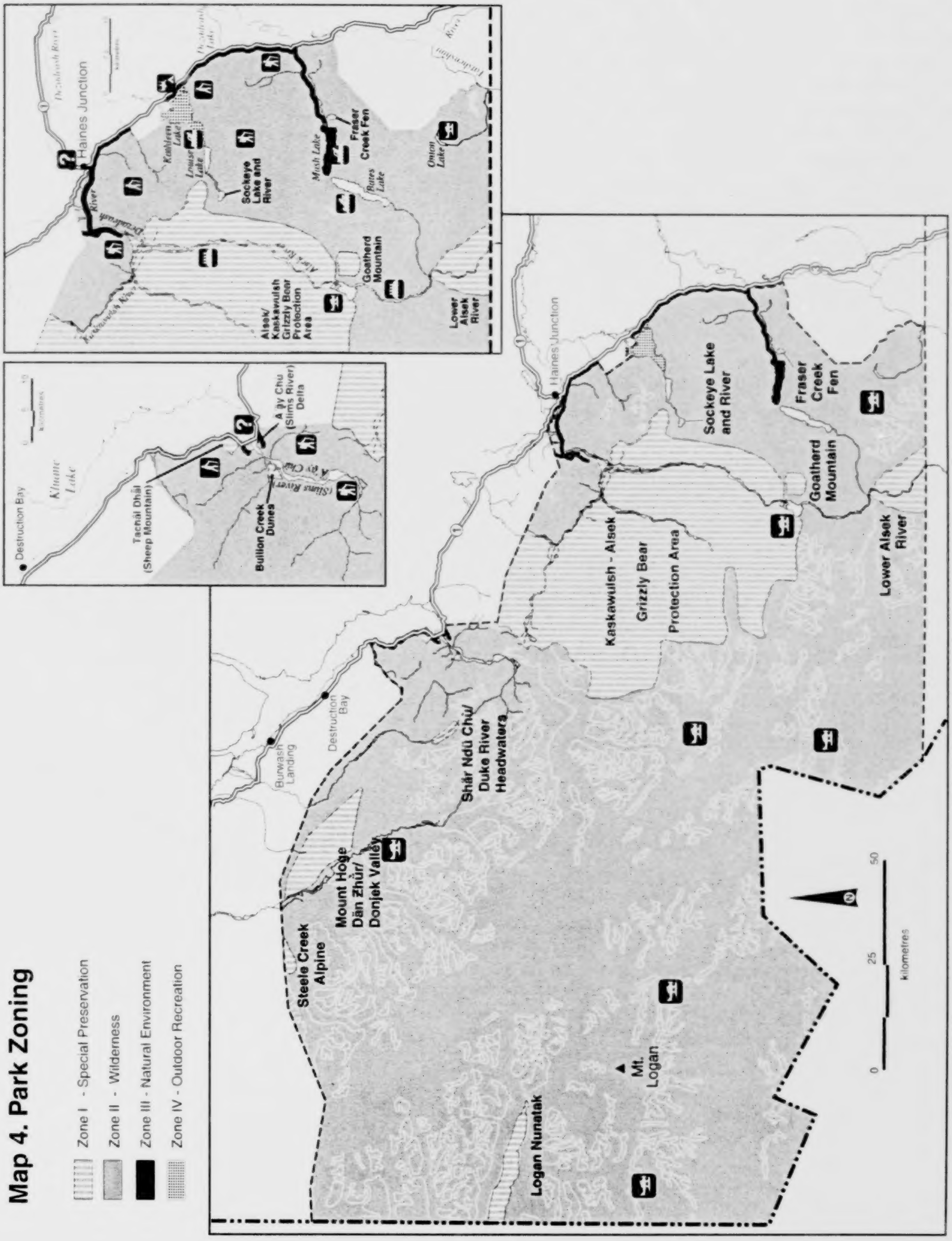
- Alsek Day Use Area changed from Zone IV to Zone II (day-use area proposed in the 1990 plan not developed);
- Bates Lake changed from Zone III to Zone II to reflect non-motorized use only;
- Dezadeash River from Serpentine Creek to Kaskawulsh River changed from Zone III to Zone II; and
- Lowell Glacier Day Use Area changed from Zone III to Zone II (day-use area proposed in the 1990 plan not developed).

During the winter months, the Cottonwood Trail and the Slims Valley will be temporal Zone III. The one to two park-sanctioned snowmobile trips that may be held annually, targeted to the region's residents, may occur in these areas. This is the only motorized activity that may be permitted in these areas. These areas will not be declared wilderness (see below).



Map 4. Park Zoning

Zone I - Special Preservation
Zone II - Wilderness
Zone III - Natural Environment
Zone IV - Outdoor Recreation
Steele Creek Alpine
Mount Hoge Dän Zhùr/ Donjek Valley
Shär Ndü Chù/ Duke River Headwaters
Burwash Landing
Destruction Bay
Kaskawulsh - Alsek Grizzly Bear Protection Area
Haines Junction
Sockeye Lake and River
Fraser Creek Fen
Goatherd Mountain
Lower Alsek River
Logan Nunatak
Mt. Logan
0
25
50
kilometres
Destruction Bay
Kluane Lake
Tachäl Dhäl (Sheep Mountain)
Bullion Creek Dunes
Ä'äy Chù (Slims River) Delta
0
5
10
Kilometres
Alsek/ Kaskawulsh Grizzly Bear Protection Area
Kathleen Lake
Louise Lake
Mush Lake
Dezadeash Lake
Dezadeash River
Rose Lake
Onion Lake



Map 4. Park Zoning

Zone I - Special Preservation
Zone II - Wilderness
Zone III - Natural Environment
Zone IV - Outdoor Recreation
Steele Creek Alpine
Mount Hoge Dän Zhùr/ Donjek Valley
Shär Ndü Chù/ Duke River Headwaters
Burwash Landing
Destruction Bay
Haines Junction
Kaskawulsh - Alsek Grizzly Bear Protection Area
Sockeye Lake and River
Fraser Creek Fen
Goatherd Mountain
Lower Alsek River
Logan Nunatak
Mt. Logan
kilometres
0
25
50
N
Destruction Bay
Kluane Lake
Tachäl Dhäl (Sheep Mountain)
Bullion Creek Dunes
Ä äy Chù (Slims River) Delta
Slims River
Alsek/ Kaskawulsh Grizzly Bear Protection Area
Kathleen Lake
Louise Lake
Mush Lake
Bates Lake
Onion Lake
Dezadeash River
Kaskawulsh River
Alsek River
Tatshenshini River

Wilderness Area Declaration

The *Canada National Parks Act* provides for the designation, by regulation, of wilderness areas of the park. The intent of wilderness declaration is to assist in ensuring a high level of ecological integrity by preventing activities likely to impair wilderness character. Only development and activities required for essential services and the protection of park resources will be permitted in declared wilderness areas. Human use in declared wilderness areas will be managed based on ecological and visitor experience objectives and recreational use strategies, in accordance with the *Canada National Parks Act.*

The major difference between park zoning and wilderness declaration is:

- park zoning is a planning tool that, while ecological integrity is the primary consideration, determines areas and sets limits on what and where uses can occur in a park, and that can be amended every five years through the management planning review process; and
- wilderness declaration regulations are a legislative tool that guarantees the public will have the highest degree of assurance that development and uses inconsistent with wilderness character will not occur, consequently a long-term permanent degree of natural state protection of the park. Boundaries of a declared wilderness area can only be changed through the formal process of a regulation amendment, which requires an Order in Council.

Over 95 percent of the park is recommended for wilderness declaration. Wilderness area declaration will generally be consistent with Zone II and Zone I areas of the park.

Key Action

1. Within one year of the tabling of the management plan, following public review, Zone II and Zone I areas identified in this plan will be declared wilderness. Wilderness area declaration may be amended by the pending *Kluane First Nation Final Agreement*.

9.4 Zone III – Natural Environment (< 1% of the park)

In Zone III areas, visitors can discover the park's natural and cultural heritage through recreational activities that require a few rustic services and facilities. Only controlled access by private vehicle will be permitted (road closures as required and motor restrictions on motor boats). All park access roads are Zone III (some had been Zone IV). These are Mush Lake Access Road, Alsek Access Road (named low grade route to Bear Camp in the 1990 plan), Vulcan Creek Access Road and Sheep Creek Access Road. Controlled road access into KNP&R is facilitated by: seasonal gate closures; short-term or long-term closures related to bears; the requirement for a four-wheel-drive vehicle; and the traditional low level of use prior to and since park establishment. The recreational use management principles will be used to determine if additional controls on road access are required.

Other Zone III areas are Mush Lake, Mush Lake Day Use Area, Dezadeash River from park boundary to Serpentine Creek (reduced in size as some of the river now Zone II), Sheep Creek Day Use Area and abandoned Pipeline Right-of-Way (change from Zone II to reflect controlled snowmobile access).

9.5 Zone IV – Outdoor Recreation (< 1% of the park)

Zone IV offers a broad range of opportunities for understanding and enjoying the park's heritage and related essential services and facilities. The park's three Zone IV areas are: Kathleen Lake; Kathleen Lake Day Use Area; and Tachäl Dhäl (Sheep Mountain) Visitor Reception Area (new).

Implementation Priorities

Fritz Mueller

Mush Lake Road

10.0 IMPLEMENTATION PRIORITIES

The management plan provides long-term strategic direction for the management and operation of Kluane National Park & Reserve. The park superintendent, working cooperatively with the Kluane National Park Management Board and Champagne and Aishihik First Nations, is responsible for the implementation of the management plan. The Yukon Field Unit Business Plan, updated annually, is used to determine the implementation strategy for the management plan and allocates resources according to management plan priorities.

Meetings with the Kluane National Park Management Board, Champagne and Aishihik First Nations and Parks Canada assist in the development of the Field Unit Business Plan. The ability to implement the plan's key actions is partially dependent upon continued resourcing. In addition, the successful implementation of many of the key actions will involve working with partners and stakeholders.

The list below indicates the high priority actions that will be initiated during the first two years of plan implementation. They are grouped according to the Parks Canada service lines that appear in the Field Unit Business Plan.

Progress will be determined through public annual reports on management plan implementation, annual reporting on business plan performance and through the national biennial *State of Protected Heritage Areas Report* and the new five-year *State of the Park Report*.

Heritage Resources Protection

- Work with others on bear management in the region.
- In collaboration with others, map ecologically significant areas and activities in the greater Kluane ecosystem.
- With others, enhance geographic information systems and other tools to support decision-making at the regional level.
- Work with Champagne and Aishihik First Nations and Kluane First Nation to help First Nation members become reacquainted with their cultural heritage in the park.
- Establish guidelines to ensure that park research and management programs are used as opportunities to familiarize local First Nation members with the park's plant and animal communities.
- Develop and implement an ecological monitoring program in cooperation with governments and agencies, Champagne and Aishihik First Nations and Kluane First Nation and researchers.
- Identify and map critical habitat and movement corridors for large mammals and introduce management measures as required to protect them.
- Implement recommendations from the Grizzly Bear Project report and continue to support the collection of information on bear ecology.
- Develop and implement aquatic ecosystem management objectives and strategies for the park.
- Establish declared wilderness through regulation of the Zone II and Zone I areas identified in this management plan.
- Support programs that further the understanding of traditional Southern Tutchone relationships with the park, including community-based research projects. A high priority project will be to identify, inventory and map traditional First Nation trails in the park.
- Develop a cultural resource management program for the park that involves local First Nation governments.
- Establish protocols that will ensure that cultural resource management programs are used as vehicles for First Nation cultural and heritage education.

- With Champagne and Aishihik First Nations and the Kluane National Park Management Board, review the No Harvest Zones in the park and develop a management and regulatory approach to First Nation harvest and trapping in the park.

Heritage Presentation

- Continue the redevelopment of the Haines Junction Visitor Reception Centre.
- Identify and develop interpretation programs and products with local residents as a key audience.
- Support local First Nations in developing and delivering educational programs on aboriginal culture related to the park to First Nation members.
- Develop school programs about the park with a focus on local schools.
- Provide opportunities for the public to learn more about park research and management actions and the role they play in maintaining ecological integrity.
- Work with Champagne and Aishihik First Nations and Kluane First Nation to establish appropriate culturally based interpretive themes and programs.
- Research and use aboriginal place names on park signage and publications.
- Work with the tourism industry to promote learning travel opportunities associated with the park.
- Work with Champagne and Aishihik First Nations and Kluane First Nation to develop and deliver programs that assist park staff and others to understand how First Nations' traditional knowledge and ties to the land contribute to the maintenance of ecological integrity.
- Develop and implement methods to regularly measure the success of interpretation and outreach programs and products.

Visitor Services

- Work with Champagne and Aishihik First Nations to develop a sales outlet in the Haines Junction Visitor Reception Centre.
- As the First Nation tourism sector develops in the region, ensure that opportunities exist for First Nation operators to enter into rafting, boat tours, shuttles and other tourism service.
- Work with Yukon government, First Nations and local communities to improve visitors' "sense of arrival" to the park.
- Develop trailhead facilities that integrate orientation, interpretation, safety and ecosystem information at popular trails.
- Work with governments and businesses to ensure that marketing efforts related to the park incorporate ecological integrity messages and create the right visitor expectations.
- Maintain the Mush Lake Road as a low grade, low volume road, to provide reliable seasonal access for four wheel drive vehicles.
- Cooperate with the Yukon government and stakeholders to maintain the Alsek River Road for reliable seasonal four-wheel-drive vehicle access.

- Designate campsites in the Ä'ą̈y Chù (Slims River) Valley to help reduce negative human/bear interactions.
- Work with aircraft operators to identify and designate one or two multiple operator day use landing sites in the Icefields.
- Work with the film industry to identify a pre-approved landing area in the Icefields for filming activities.
- Collaborate with Yukon Tourism, Champagne and Aishihik First Nations and others to explore the concept of a parkway driving experience along the Haines Highway.
- Encourage cross-country skiing and backcountry ski touring by regularly track setting popular ski trails and packing the Cottonwood Trail in spring.
- Conduct one or two park-sanctioned snowmobile trips annually, focused on local residents.

Management of Parks Canada

- Engage stakeholders and the public during the implementation of the park management plan, including an annual report by Parks Canada and a public forum coordinated by the Kluane National Park Management Board.
- Consult with the public and stakeholders on major new initiatives.
- Ensure that the potential economic benefits of new management initiatives, like the ecological monitoring program, are considered in program design and implementation and support First Nation employment.
- Pursue cooperative efforts between KNP&R and Wrangell-St. Elias National Park and Preserve and Glacier Bay National Park and Preserve which further the efforts of the protected areas.
- Review current park operation facilities and infrastructure, including staff housing and warden cabins, to ensure that the facilities meet the long-term needs of park operations and administration.

Summary of the Environmental Assessment

Fritz Mueller

Spruce grouse chick

11.0 SUMMARY OF THE ENVIRONMENTAL ASSESSMENT

11.1 Overview

The *Kluane National Park & Reserve of Canada Management Plan* underwent a strategic environmental assessment (EA) review in accordance with the Environmental Assessment Process for Policy and Program Proposals Cabinet directive. Screening was conducted early in the management planning process to ensure environmental effects of plan initiatives were considered before irrevocable decisions were made. This provided an opportunity to adjust the plan. The potential for management plan proposals generating adverse environmental effects was assessed. Results of the assessment are briefly discussed below. (Please consult the *Strategic Environmental Assessment Kluane National Park & Reserve of Canada Management Plan* for detailed environmental assessment documentation.)

Over the last ten years Kluane National Park & Reserve of Canada has invested considerable time and resources to ensure that adequate scientific and visitor use research in support of management planning and park management has taken place. Significant resources have been invested to gain a better understanding of human-bear ecology. Research efforts have gone beyond single species approaches to address cumulative effects upon valued ecosystem components (VECs). Management plan key actions presented in the revised plan have been positively influenced by recommendations from these studies. The management plan provides a reasoned course of action to address current stressors affecting Kluane National Park & Reserve. Use of recreation management techniques and an adaptive management approach should limit the vulnerability of resources to significant change. Success of this approach is dependent upon carefully designed and executed monitoring work to measure the effectiveness and support the refinement of management tools. If adequate monitoring and follow-up activities are not undertaken, resources will be more vulnerable to anthropogenically induced changes that may not be readily discernable until they are in an advanced state of development. This may limit options and success of corrective measures available once problems are detected.

Many proposals described in the management plan are conceptual in nature. It is not possible to fully evaluate the environmental effects of these initiatives at this time. As more detailed information becomes available, projects will be assessed pursuant to the provisions of the *Canadian Environmental Assessment Act (CEAA), Development Assessment Process/Yukon Environmental and Socio-economic Assessment Act (DAP/YESAA)* or other successor legislation. The Parks Canada Agency is a Responsible Authority under the *CEAA*. The Agency will not undertake any project prior to preparing an environmental assessment and deciding on a course of action to approve, not approve, or refer the project for additional EA review.

A substantial number of the key actions are refinements of existing management approaches in use at KNP&R. Few new activities or facilities are proposed. Development and operation of a day use area at Alsek Pass was proposed in 1990 *Kluane National Park & Reserve Management Plan*. A detailed Initial Environmental Evaluation completed in 1996 concluded the project was likely to generate significant impacts, some of which would be difficult or impossible to effectively mitigate. The project has since been abandoned and is not proposed in the present management plan.

Some actions are expected to generate employment and economic benefits for local and regional businesses. Others are likely to negatively affect these sectors. Consistent with Land Claim provisions, significant positive socio-economic benefits are expected to accrue to local First Nations. Exercising claim provisions such as right of first refusal may generate resentment among some members of local communities. Clear and accurate communication of claim rights, business and tendering processes to all affected parties is needed in order to minimize misinformation and maximize community harmony.

11.2 Impact Analysis and Evaluation

Principles

The approach taken in the management plan is precautionary and is based on ensuring the long-term ecological integrity of Kluane National Park & Reserve. Standard conservation biology techniques, such as adaptive management and the precautionary principle, have been employed in the development of the Ecological Integrity Statement and individual proposed key actions within the plan. When detailed assessments are undertaken for activities and developments proposed in the management plan, impacts to natural and cultural resources and visitor experiences will be considered.

Three evaluation criteria originally presented in the 1990 management plan will be used to guide park management decision-making: compatible (sympathetic and complimentary with wilderness nature of park and resource sensitivities); controllable (timing and frequency of use) and reversible (monitor effects and adjust as required to minimize impacts or eliminate facility or use if needed). For instances where little empirical data is available or there is uncertainty about impact prediction accuracy, decision-making will be conservative allowing ecological integrity precedence over socio-economic, visitor use or other considerations. Utility of an adaptive management approach is predicated on appropriate long-term monitoring programs and program refinement. Securing adequate resources to undertake this approach is fundamental to its success.

Stressors

The management plan identifies the major stressors acting on the park and regional ecosystem. Appropriate indicators of ecological integrity have been established and targets prescribed. Ecological monitoring goals and the Ecological Integrity Statement (EIS) are incorporated into the management plan. The EIS is a key document, outlining necessary steps and approaches to monitoring and assuring attainment of ecological integrity in the park. Research has been initiated to increase knowledge on effects of stressors on the ecosystem. Interventions such as human use quotas are in place in key areas such as greenbelt river corridors. Effectiveness of these approaches is monitored. Adaptive management feedback loops appear to be utilized to refine management methods.

Ecological Integrity

Extensive research on bear-human conflicts in the backcountry trail and river corridors of KNP&R has been conducted. Recommendations have been incorporated into key actions in the management plan. Easy access to core security areas is one of the most important factors in sustaining viable grizzly populations. The park has recognized the need to preserve those areas where grizzlies are able to avoid human encounters. Zoning in the revised management plan provides a much larger Zone I special preservation area for bear security. Humans are not restricted from travel in all portions of the zone. However spatially and temporally managed core security areas are in place, which do prohibit human travel. Additional management methods are used to control human use (e.g., mandatory use of bear-proof food canisters) within areas of the Zone 1 where human travel is permitted. Monitoring the effectiveness of these measures is crucial to ensure the desired results (reduced number of bear management actions; reduced bear-human encounters; reduced property loss; stable or increased grizzly bear population) are achieved. Monitoring results should be employed to refine management methods in an adaptive management approach that stresses a conservative, precautionary approach to decision-making. Several authors reporting on work conducted in KNP&R state that the combined effects of human visitation to key corridor habitats by humans hiking and rafting are likely reaching a threshold level. Additional human activities during the active season for grizzlies are likely to negatively impact the bear population and may eventually make the population vulnerable to decline or elimination if corrective actions are not implemented. Reaching this state of affairs is unlikely, however, given the current and proposed management approaches in KNP&R. The proposals in the management plan are not expected to result in any direct loss of habitat.

Effects of road density on the environment have been extensively studied in recent years by the US Forest Service and others. Study results indicate a strong positive correlation between road density and the level and number of disturbance factors impacting ecosystems. The road density within Kluane National Park & Reserve is very close to zero km of road per square km of protected area. There are short roads within the park but none of any scale that penetrate deep into the interior of the park. The Alsek Road is a primitive unimproved four-wheel-drive road that traverses about 18 km into KNP&R. The Mush Lake Road is a 22 km one lane mining road providing four-wheel-drive access to Mush and Bates lakes, the Alder Creek Valley and the Cottonwood Trail. Levels of use on these roads have always been low and remain so today. Seasonal gate closures, the need for a four-wheel-drive vehicle and closures to avoid bear-human interactions further restrict levels of human use.

Light fixed-wing and rotary aircraft are used in KNP&R in support of backcountry travel and park operations, as well as by several flight-seeing operators. Aircraft use has the potential to negatively affect wildlife and visitor wilderness experience. Aircraft guidelines that restrict flight frequency, route, take-off and landing sites are in place to manage aircraft use within the park. KNP&R has no direct means of controlling sight-seeing overflights in the protected area. Research indicates some ungulate populations may be vulnerable to harassment from aircraft use. Additional study and continued monitoring of aircraft use and its effects upon wildlife should be encouraged. Results should be used to refine aircraft management within the park.

Wildlife

No native mammal species in the park are listed as endangered or threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The grizzly bear is ranked by COSEWIC as a species of special concern (defined as a wildlife species that is of special concern because it is particularly sensitive to human activities or natural events, but does not include an extirpated, endangered or threatened species).

Fish productivity is low in oligotrophic, northern, subarctic lakes like Kathleen Lake. This makes species vulnerable to over-harvest unless the fishery is carefully managed. The management plan proposes means to gain a better understanding of the aquatic species and communities in the park. Results should be employed in the management of these resources.

Cultural Reintegration

The park management plan contains numerous key actions aimed at reintegrating Southern Tutchone people with the regional ecosystem. Expected outcomes of these actions include an increased role of First Nations in management of KNP&R; improved access to traditional territories and rights; an increased level of cooperative management between Parks Canada and First Nations; and positive social, and economic benefits to local First Nations.

Cultural Resources

Significant historical and archaeological resources are located within Kluane National Park & Reserve. Actions proposed in the management plan are not expected to result in direct negative impacts to these resources. The approach outlined will significantly increase levels of First Nations' participation in heritage and cultural resource management initiatives in the park. Enhanced working relationships between Parks Canada and local First Nations are anticipated. KNP&R contains no Classified Federal Heritage Buildings. Additional evaluation of historical resources associated with gold mining, Alaska Highway construction, and mountaineering is proposed.

Visitor Use

A Recreational Opportunities Working Group was established to identify new recreational opportunities, and discuss impacts of present and proposed uses. The group had a diverse make-up and included local residents and others with a keen interest in KNP&R. Their deliberations helped shape the key actions in the management plan. Key actions in the management plan aim to provide high quality visitor experiences while ensuring a high level of ecosystem protection. Examples include the Alsek River Management Guidelines, and Kluane National Park Aircraft Use Guidelines and Conditions.

Park Operations/EMS

Park administration and visitor reception functions have minimal direct impacts on KNP&R. Administration, office, maintenance, staff housing and the main visitor reception facilities are located in the community of Haines Junction, north of the park boundary. Haines Junction is strategically located at the intersection of the Haines and Alaska highways. KNP&R is presently developing and implementing an Environmental Management System (EMS) Action Plan that addresses key environmental aspects identified by Parks Canada. The intent is to minimize the environmental impacts of Parks Canada's operation and administration. Environmental aspects include energy conservation, fleet management, green procurement, hazardous material management, pesticides, petroleum storage tanks, solid waste management, water conservation, and wastewater management. Additional information including a complete list of key environmental aspects is available on the Parks Canada website at:

http://www.pc.gc.ca/progs/np-pn/usage/usage4_E.asp#systems

Wilderness

Section 14 (1) of the *Canada National Parks Act* (*CNPA*) enables the Governor in Council to declare any area of a park that exists in a natural state or that is capable of returning to a natural state to be a wilderness area. Large portions of the park are expected to be declared wilderness areas within a year of management plan approval. This will provide an enhanced level of protection to the majority of the park.

11.3 Cumulative Effects

The environmental impacts of individual projects appear to have limited potential to generate significant impacts. However the collective impacts of these projects may be significant. Considerable effort has been expended by KNP&R to determine the cumulative environmental effects of actions proposed in the park management plan. This work was initiated by Hegmann who conducted a cumulative effects analysis of the proposals in the 1990 Kluane National Park Reserve

Management Plan, and the regional and park activities in place at the time of the study in 1995. Slocombe and others have recently completed an updated analysis, using the same methodology, on the revised *Kluane National Park & Reserve of Canada Management Plan*. (Detailed results of these studies are not presented here. Please consult these references for complete details of methods and results.)

Park management has responded positively to recommendations in Hegmann's 1995 cumulative effects report for the park. The Alsek River Management Guidelines are an example. They have evolved in response to the cumulative effects report as well as input from commercial river guides, the KNP&R warden service, and research and monitoring. Closure of the camping area near the small creek at the foot of Goatherd Mountain is a specific example. This campsite was in a narrow travel corridor frequented by grizzlies. Consequently, the potential for bear-human encounters was unacceptably high.

Alsek River rafting, and aircraft use in support of rafting and backcountry hiking were identified as the largest contributors to cumulative environmental effects in the protected area. Regional resource extraction (hunting, mining) and infrastructure development activities (road and community development) were also considered to be sources of negative cumulative effects on KNP&R. The work of Hegmann, MacHutchon, McCann and others finds grizzly bears to be the top species of concern. Mountain goat, Dall's sheep, and moose are also of note. The park management plan prescribes many key actions to eliminate or ameliorate these stressors.

11.4 Policy Consistancy

Key actions in the *Kluane National Park & Reserve of Canada Management Plan* are consistent with policies of Parks Canada and the federal government. Proposed snowmobiling activities will likely not trigger the *CEAA* or successor environmental assessment legislation. Prior to permitting or undertaking these activities, a non-CEAA environmental assessment should be prepared to document the likely impacts of these activities as well as means to avoid or mitigate impacts. This would fulfill Parks Canada's policy obligation for exemplary use of environmental assessment. Assessment results should be employed when deciding on a course of action for these activities. The management plan proposes public use of snowmobiles at Kathleen Lake, a Zone IV area. This is consistent with Parks Canada policy and zoning.

11.5 Determination

Key stressors affecting Kluane National Park & Reserve have been identified. The *Kluane National Park & Reserve of Canada Management Plan* proposes numerous actions to address these threats. An Ecological Integrity Statement (EIS) has been incorporated into the management plan. The EIS describes indicators, targets, and monitoring protocols that will be used to determine the state of ecological integrity in the park. Results will be reported on a regular basis in *State of Protected Heritage Areas Reports* and in annual reports detailing progress implementing the management plan. Many of the key actions in the plan address stressors from activities outside the park boundary. A greater ecosystem or regional land management approach is promoted in the plan.

Enhanced levels of understanding, collaboration, and cooperation between neighboring agencies and individuals involved in land management activities are anticipated. This should positively influence levels of ecological integrity in Kluane National Park & Reserve. Satisfactory research and analysis has taken place regarding the expected cumulative effects of implementing the management plan. Recommendations from cumulative effects assessment studies have been incorporated into the management approach outlined in the plan and in daily operations of Parks Canada activities. Implementation of the *Kluane National Park & Reserve of Canada Management Plan* is not expected to cause significant negative environmental effects. The net cumulative effect of the plan will be an enhanced ability to restore and manage toward higher levels of ecological integrity. Positive socio-economic benefits to local First Nations are anticipated. Adequate public review has taken place during the management plan review process.

Appendix A - Park Ecosystem Model

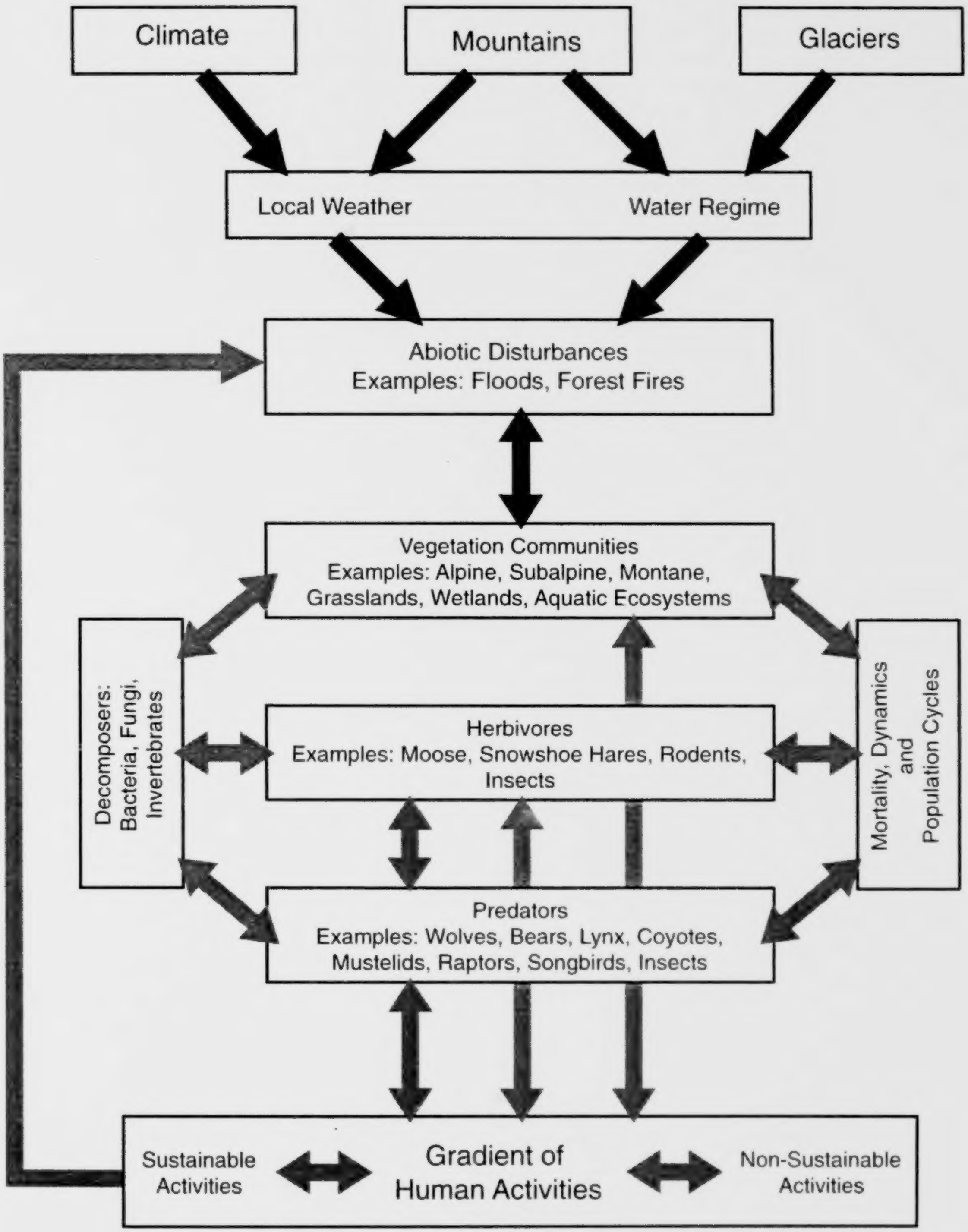
An ecosystem model is a conceptual framework that can help synthesize our understanding of park ecosystems by identifying important relationships and linkages. An ecosystem model does not represent all components of an ecosystem. It simply tries to represent the important dynamics of an ecosystem by linking together its major elements. An ecosystem model can also help guide the selection of indicators to monitor the ecological integrity of park ecosystems.

An ecosystem model for Kluane National Park & Reserve has been developed (Figure 1). The model points out some of the important ecological dynamics that occur in this region and helps to guide our thinking. Submodels for different parts of the ecosystem can also be developed, depending on management and interpretive purposes. For example, a submodel for the snowshoe hare population cycle or a submodel for spruce bark beetle outbreaks could be developed.

In Figure 1, an arrow indicates a relationship between the ecosystem components named in the boxes connected by the arrow. A two-headed arrow means that the relationship flows both ways. A series of boxes linked by arrows indicates a "flow-through" relationship. For example, herbivores (e.g., spruce bark beetles) can have an influence on forest fires or floods, and these abiotic disturbances can also influence population cycles.

The relationships depicted in the general Kluane ecosystem model reflect some traditional and local knowledge and are substantiated by many research and management projects. The model is simply an attempt to summarize some of the most important ecological relationships. The understanding of these relationships has guided the selection of indicators (e.g., monitoring the grizzly bear population) and key actions (e.g., working with others on bear management in the region) that are described elsewhere in the management plan.

Figure 1 - Park Ecosystem Model


Climate
Mountains
Glaciers
Local Weather
Water Regime
Abiotic Disturbances
Examples: Floods, Forest Fires
Vegetation Communities
Examples: Alpine, Subalpine, Montane, Grasslands, Wetlands, Aquatic Ecosystems
Decomposers: Bacteria, Fungi, Invertebrates
Herbivores
Examples: Moose, Snowshoe Hares, Rodents, Insects
Mortality, Dynamics and Population Cycles
Predators
Examples: Wolves, Bears, Lynx, Coyotes, Mustelids, Raptors, Songbirds, Insects
Sustainable Activities
Gradient of Human Activities
Non-Sustainable Activities

Appendix B - Major Park Audiences

The seven audiences described below were determined using the following questions:

- Why are these people here? (passing through/destination/locals)
- How long will they be here?
- What will they be doing?
- What services do they require? (Parks Canada and others, public and private)

By separating audiences into these groups, it is possible to more clearly understand the park's audiences and ensure that they are well served.

1. Locals

This audience may visit Kluane National Park & Reserve for a few hours, a day, a weekend or a week at a time. They may visit numerous times throughout the year from their nearby homes in the Yukon or Alaska. To this group KNP&R is viewed as "their" park, where they often come for a weekend of camping, fishing, hiking, skiing, relaxing or touring with visiting friends and relatives. To them, KNP&R is not viewed as a "world-class" destination, but as a weekend retreat and environment where they are comfortable. Local school groups are also considered part of this group.

2. Day-Use/Overnight Backcountry

This group is on a *destination-outdoor* vacation. KNP&R is a primary destination that is planned before this group leaves home. Visitors in this group consider themselves to be *travellers* or *explorers* as opposed to *tourists*. Through their vacation they are seeking to gain a good understanding of their destination. Many of the characteristics that describe this group also apply to the Extended Backcountry Trips and Mountaineering audience. The distinction between the groups is not always clear. Both are motivated to discover what KNP&R is all about, and they venture into the backcountry in search of that understanding. The differences are in both the difficulty of the trip they are venturing on and the degree of support services and facilities they require. This group will hike hard for a day or perhaps even up to five days on a marked trail following a written description. They are not interested in deviating from the trail to explore unmarked routes. At the end of their trip, they will often return to enjoy a hot shower, comfortable lodging and a fine meal.

3. Extended Backcountry Trips and Mountaineering

As with the previous group, this audience is on a *destination-outdoor* vacation. Their primary, and often only destination, is KNP&R. This audience is motivated by the world-class stature of the park. Their goal is to get into the backcountry and explore rugged pristine wilderness. They may be attracted by the Icefields, the highest mountains in Canada, or by route finding through many miles of unmarked wilderness without seeing another person. Many are looking to challenge themselves and to gain an intimate understanding of the park. Rafters who are not part of a commercial expedition also fall into this category. This group is coming specifically for extended backpacking trips, unguided rafting trips, ski touring and/or mountaineering expeditions.

4. Guided Trips

More and more visitors are using guides to explore and learn about the park. This audience can be involved in a great variety of activities, but they all undertake the activity with the assistance of a guide. Some visitors do this mainly to learn more about the area, while others want a guide more as a safety factor to insure they do not have to worry about getting lost or travelling in bear country. Others do not want to spend time organizing a trip. Trips range from day or overnight trips on well-marked trails to 8–10 day off-trail hikes or rafting trips.

5. Yukon – Alaska Circle Tour

Members of this group are on a touring vacation of the north. These travellers tour both the Yukon and Alaska, and although they have a somewhat planned agenda can deviate from their plans. They travel throughout the area, with time to make stops to day hike, participate in a flightseeing tour, join in interpretive events, tour the visitor centres or hike with a local guide. They often come into both visitor centres, state that they have a set amount of time (e.g., two days) in the area, and ask for suggestions on how they should spend their time. They do not usually participate in overnight hikes in the park. They typically spend their nights in the comfort of either a recreational vehicle or in a motel or hotel. There may be some overlap between this audience and the Day-Use/Overnight Backcountry audience as the Yukon–Alaska Circle Tour group sometimes takes one to two night backpacking trips into the park. But they differ in the sense that the Yukon–Alaska Circle Tour members then continue to other locations for the remainder of their vacation.

6. Alaska Bound

Members of this group are passing through the area en route to or from Alaska. They are *accidental visitors* to the area, visiting only because it is the route they must take to get to their destination. The Yukon, and specifically KNP&R, do not figure prominently into their travel plans. Many do not realize they are travelling beside a national park and World Heritage Site. They do not generally leave the immediate vicinity of the main highways bordering the park. They may visit the park visitor reception centres or a roadside exhibit, and some (mainly independent travellers) may walk very short nature trails. There is a perceived or actual time restriction that typically limits their stay in the area to only a few hours.

This audience is made up of two subgroups, each with the same motivation–to get to Alaska:

1. Package tour travellers: travelling on bus tours or combination bus-ferry or bus-air tours.
2. Independent travellers: travelling in personal vehicles (including recreational vehicles).

7. General Public

This audience consists of the general public of Canadians and people abroad who do not visit the park but who are interested in Kluane National Park & Reserve as a protected area, part of the national park system and a World Heritage Site.

Appendix C - Major Park Messages

A System of Protected Areas – People will understand and appreciate:

- KNP&R is a national park in a Canada-wide family of national parks and historic sites administered by Parks Canada;
- KNP&R represents the Northern Coast Mountains Natural Region;
- the park is within the traditional territory of the Champagne and Aishihik First Nations and the Kluane First Nation;
- the park is cooperatively managed;
- the park is part of the Kluane/Wrangell–St. Elias/Glacier Bay/Tatshenshini–Alsek World Heritage Site designated by UNESCO; and
- the Alsek River is designated as a Canadian Heritage River.

Ecological Integrity - People will understand and appreciate:

- the role of the park as a protected area within a larger regional ecosystem;
- the threats and challenges to maintaining ecological integrity;
- what is being done to address these challenges;
- the fact that stewardship of the park is a shared responsibility;
- the long-standing relationship between local First Nations and the land;
- the significant contributions that traditional knowledge brings to ecosystem-based management;
- the role monitoring plays in maintaining ecological integrity;
- the dynamics of wildlife populations and aquatic ecosystems; and
- the natural processes and events (e.g., fire, insect outbreaks and disease) that are part of a normally functioning ecosystem.

A Sense of Place – deals with the park's five main interpretive themes:

- *An Ever-Changing Dynamic Environment* describes the landscape, including Canada's highest mountains and one of the world's largest non-polar icefields, and the effects of tectonic, glacial and hydrological forces on the land, vegetation, animals and people who have lived there.
- *Experiencing Kluane's Riches* recognizes that people have come and continue to come to this area for its many riches, natural and cultural. People have come for obsidian and copper and more recently gold, for the rich wildlife and plants, and for the aesthetics and challenges offered by the landscape.

- *Loss of Use, Loss of History* tells the story of the creation of Kluane National Park & Reserve and the removal of people from the day-to-day functioning of the park's ecosystem, which had significant consequences for local First Nations; and subsequent efforts towards the re-integration of First Nation activities.
- *A Tradition of Stewardship* recognizes that whether a home to First Nations or a protected area offering wilderness and solitude, the park environment's continued health is of prime importance.
- *Significance Beyond Boundaries* speaks to the fact that the park is part of a regional ecosystem and a World Heritage Site consisting of four protected areas in two countries.

Appendix D - Appropriate Outdoor Recreational Activities

Following is a list of Outdoor Recreational Activities that are appropriate in KNP&R.

BACKPACKING
- casual
- expeditionary

BOATING
- motor boating
- canoeing
- kayaking
- rafting

CAMPING
- primitive
- serviced

CLIMBING
- technical climbing
- scrambling

CYCLING
- trail biking

DOGSLEDDING

FISHING
- recreational
- ice-fishing

FLIGHTSEEING

HERITAGE APPRECIATION
- art activities
- birdwatching
- wildlife viewing
- photography
- sightseeing
- cultural heritage appreciation

HIKING/WALKING

HORSEBACK RIDING

MOUNTAINEERING

PICKNICKING

SKIING
- cross-country
- telemark
- touring

SNOWSHOEING

SWIMMING

Note: KNP&R's zoning criteria, recreational use management principles and/or area specific ecological and visitor experience objectives will be used to define and clarify the specific means of access (e.g., vehicle, aircraft, motorized, etc.), level of use and locations of use for the various outdoor recreational activities listed as appropriate in KNP&R.

Appendix E - Indicators of Wilderness Character

Wilderness Management Objective #1: Pristine campsites with little if any sign of other recreational use

GEOGRAPHIC LOCATION	INDICATOR	TARGET
Cottonwood Trail	• Campsite density • Campsite perceptibility	• less than 1 campsite for every 2 km of trail • more than 60% of campsites are barely to not perceptible
Alsek River	• Campsite density • Campsite condition class	• more than 80% of river campsites barely to not perceptible • more than 80% of river campsites have a condition class rating of 12 or less
Dezadeash River	• Campsite density	• less than 2 campsites along the Dezadeash River between Haines Junction and Serpentine Creek
Ä'ą̈y Chù (Slims River) Valley	• Campsite condition class	• no more than one campsite per trail has a condition class rating greater than 10
Shär Ndü/Duke/Dän Zhǜr/Donjek	• Campsite density • Campsite perceptibility	• less than 1 campsite for every 5 km of trail route • more than 80% of all campsites are barely to not perceptible

Wilderness Management Objective #2: Provide opportunities for solitude and natural quiet

GEOGRAPHIC LOCATION	INDICATOR	TARGET
Cottonwood Trail	• Encounters with other parties	• less than 4 encounters with other parties per day along the trail
Kathleen Lake	• Encounters with other parties	• mean number of encounters with other parties per day less than 8.7
Alsek River	• Encounters with other parties • Aircraft encounters	• Alsek River travellers report having no more than 1 encounter with other groups every second day • hearing no more than three aircraft every two days
Dezadeash River	• Encounters with other parties	• less than 1 encounter with other parties every second day along Dezadeash River between Haines Junction and Serpentine
Ä'ą̈y Chù (Slims River) Valley	• Encounters with other parties	• hikers do not encounter more than 5 others parties on the trail and more than 3 parties at campsites on average

Appendix E - Indicators of Wilderness Character continued

Wilderness Management Objective #2: Provide opportunities for solitude and natural quiet (continued)

GEOGRAPHIC LOCATION	INDICATOR	TARGET
Shär Ndü/Duke/Dän Zhùr/Donjek	• Encounters with other parties	• less than 1 encounter with other parties per day at campsites
Icefields	• Encounters with other parties • Aircraft encounters	• mean number of encounters with other parties less than 2 a day along routes, and less than 4 a day at (base) camps • mean number of encounters with aircraft less than 1.6 per day along routes, and less than 3.7 per day at (base) camps
Off Highway Corridor	• Encounters with other parties	• mean number of encounters with other parties less than 7.1 at trailheads, and less than 6.0 along trails

Wilderness Management Objective #3: Provide quality wilderness experiences (as measured through visitor surveys)

GEOGRAPHIC LOCATION	INDICATOR	TARGET
Cottonwood Trail	• Wilderness experience rating	• more than 80% of hikers indicate having a near or total wilderness experience
Kathleen Lake	• Wilderness experience rating	• more than 80% of day users report having a quality wilderness experience
Alsek River	• Wilderness experience rating	• more than 85% of river travellers report having a near or total wilderness experience
Ä'ą̈y Chù(Slims River) Valley	• Wilderness experience rating	• more than 80% of hikers report having a near or total wilderness experience
Shär Ndü/Duke/Dän Zhùr/Donjek	• Wilderness experience rating	• more than 95% of hikers report having a near or total wilderness experience
Icefields	• Wilderness experience rating	• more than 90% of mountaineers report having a near or total wilderness experience
Off Highway Corridor	• Wilderness experience rating	• more than 74% of off-highway travellers report having a near or total wilderness experience

Appendix F - Zone I Special Preservation Areas

Logan Nunatak

Nunataks are unique resources in the national park system. They are islands of life surrounded by the inhospitable environment of icefields. The ecology and evolution of plant and animal species on nunataks is of scientific importance and worthy of special protection.

Steele Creek Alpine

The Steele Creek Alpine area is protected because it is the best representation of the Northern Alpine Ecosystem within the park. Protection of this representative alpine area also ensures the preservation of several species of rare plants that are located there. Alpine areas are sensitive to a variety of impacts and deserve special protection.

Mt. Hoge/Dän Ƶhǜr/Donjek Valley

The special resources of this area comprise an assemblage of plant and animal communities that are significant to the national parks system. The area supports one of the largest Dall's sheep populations on an all-season range in North America and has the northernmost population of mountain goats on the continent. Wolves and grizzly bears prey upon these ungulates. A number of rare and fragile plants and plant communities add to the significance of the animal communities, producing a valuable ecosystem essentially unaffected by human influence.

Shär Ndü Chù/Duke River Headwaters

The Shär Ndü Chù / Duke River headwaters provide a habitat for a plant, *Braya purpurascens* that is rare in Canada and, in the Yukon, has only been collected from this particular site.

Bullion Creek Dunes

The Bullion Creek Dunes are significant features that have resulted from material being deposited by glacier winds and then modified to form unstable dunes. They are largely unvegetated and are extremely susceptible to disturbance.

Tachä̀l Dhǟl (Sheep Mountain)

The Tachä̀l Dhǟl area comprises a unique combination of valuable but sensitive resources that require special protection. Unrelenting glacier winds have resulted in the deposit of a thin veneer of loess on bedrock, moraines and fans in the Tachä̀l Dhǟl area. The various wind-formed features are excellent examples of undisturbed aeolian processes. The vegetation of the area and its relationship with the loess deposit is of interest, and it supports a population of Dall's sheep throughout their life cycle. The soils and deposits of the area are dry and highly susceptible to erosion caused by disturbance. Special protection measures are needed to perpetuate these fragile resources and their dependent plant and animal communities.

Ä'ą̈y Chù (Slims River) Delta

Delta ecosystems are dynamic resources that depend on periodic disturbances caused by natural processes that are often influenced by humans. The Ä'ą̈y Chù delta is a unique system characterized by only 28 plant species that have adapted to the cycle of flooding and the saline soil conditions. The Alaska Highway has altered the natural cycle of deposition of silt on this delta. Special protection is merited to ensure its continued existence.

Alsek/Kaskawulsh Grizzly Bear Protection Area

The Alsek and Kaskawulsh river valleys harbour the densest grizzly population in the park. Denning areas are found high in the alpine zone, and valleys provide the diversity of habitats and foods to support grizzlies year-round. Experience in managing visitor use in KNP&R has shown that grizzlies can quickly habituate to humans and that subsequent management actions result in the death of bears. The special grizzly bear protection zone protects grizzlies by reducing their exposure to humans and the accompanying foods and garbage. These measures will preserve what is the best example of a wilderness grizzly population in the national parks system. In addition, the area will protect a number of special features, including aeolian landforms like dunes as well as rare plant communities.

Goatherd Mountain

The alpine area of Goatherd Mountain is protected because it is the best representation of the Coastal Alpine Ecosystem in Kluane National Park & Reserve. A local goat population is another important resource of the area. The fact that this alpine area is one of the few ranges that supports goats in the absence of Dall's sheep is of scientific interest.

Lower Alsek River

The southern portion of KNP&R is influenced by a moderate coastal climate that results in the expression of plant and animal communities differing from other areas of the park that are subject to different regimes. The lower Alsek River best represents this more productive ecosystem and protects species and communities not common to the Yukon or the national parks system.

Sockeye Lake and River

This area provides critical spawning grounds for kokanee salmon, the freshwater form of sockeye salmon (*Oncorhynchus nerka*). This population originated from sea-running stock that was blocked from access to the sea by a surge of the Lowell Glacier, across the Alsek River. The sockeye salmon is an important fish species in the ecology of Sockeye, Louise and Kathleen lakes and Kathleen River, and it merits special protection. This species is also valuable in the interpretation of the recent geological and biological events of the region.

Fraser Creek Fen

The Fraser Creek fen is an important wetland complex in KNP&R. It represents a habitat that is rare in the park and supports nesting trumpeter swans, a species deserving special protection. Female moose and their calves are also known to use this habitat.

Airdrop Lake/Hoodoo Mountain Archaeological Sites

Hoodoo Mountain has one of the few undisturbed ancient obsidian quarry sites in Canada. Obsidian from this source has been identified at many sites outside the park, representing some 8,000 years of human use. Considered in total, these sites provide information about pre-contact exchange networks, manufacturing, and how hunting economies dependent on stone tools acquired this vital resource. Due to the sensitivity of these sites, they are not mapped.

Kluane National Park & Reserve of Canada

KLUANE
NATIONAL PARK & RESERVE OF CANADA
Management Plan

Canada

Parks Canada Parcs Canada

Management Plan ~ Summary~

This document is a summary of the 2004 Kluane National Park & Reserve of Canada Management Plan. The summary is intended to provide an overview of initiatives, approaches and principles that will guide the management of Kluane National Park & Reserve over the next five years. Refer to the full-length management plan for more comprehensive information and detailed lists of key actions.

The Kluane National Park & Reserve Management Plan was recommended by Kluane National Park Management Board and Champagne and Aishihik First Nations and approved by the Minister of the Environment in April, 2004.

The complete plan is available on the Internet at: www.pc.gc.ca/Kluane, or on CD or in print from Parks Canada offices in Haines Junction and Whitehorse. Copies are also available from the Kluane Management Board office in Haines Junction.

INTRODUCTION

Each of Canada's national parks has a management plan. The plans reflect the legislation and policies of Parks Canada and comprehensive land claim agreements and are prepared in consultation with Canadians. They are tabled in Parliament and reviewed every five years.

Since the last management plan in 1990, the most notable change for the park is land claims negotiations with the Champagne and Aishihik First Nations (CAFN) and the Kluane First Nation (KFN) within whose traditional territories the park is situated. Through this plan, Parks Canada has strengthened its commitment to preserving park resources in a way that integrates ecological, social and economic values and recognizes the rights of First Nations with regard to park use and management.

For ease of reading, the word 'park' is used to refer to both the park and park reserve.

Park Purpose and Objectives

The purpose of Kluane National Park & Reserve of Canada is to protect for all time, and to present to the public, a natural area of Canadian significance representative of the Northern Coast Mountains Natural Region. Some of the characteristics that define this region are: the St. Elias Mountains and icefields including Mount Logan; one of the most genetically diverse populations of grizzly bears in North America; the largest concentration of Dall's sheep in the world; local First Nations with strong ties to the land and commitment to maintaining this aspect of their culture; and the park's wilderness character.

The *CAFN Final Agreement* also sets out objectives for the park. These include recognizing CAFN history, culture and use of the park, providing economic opportunities to Champagne and Aishihik people, recognizing oral history as a relevant form of research and celebrating the heritage of Champagne and Aishihik people.

Key Initiatives

- Assist local First Nations to become reacquainted with the park.
- Work with partners in the region to maintain a healthy ecosystem.
- Strengthen cooperative management.
- Offer a variety of high quality wilderness experiences.
- Identify and protect critical wildlife habitat and movement corridors.
- Increase ecological integrity monitoring.
- Expand interpretation and outreach programs.
- Establish wilderness area declaration for Zone I and II areas of KNP&R.

Fritz Mueller

105-04111/

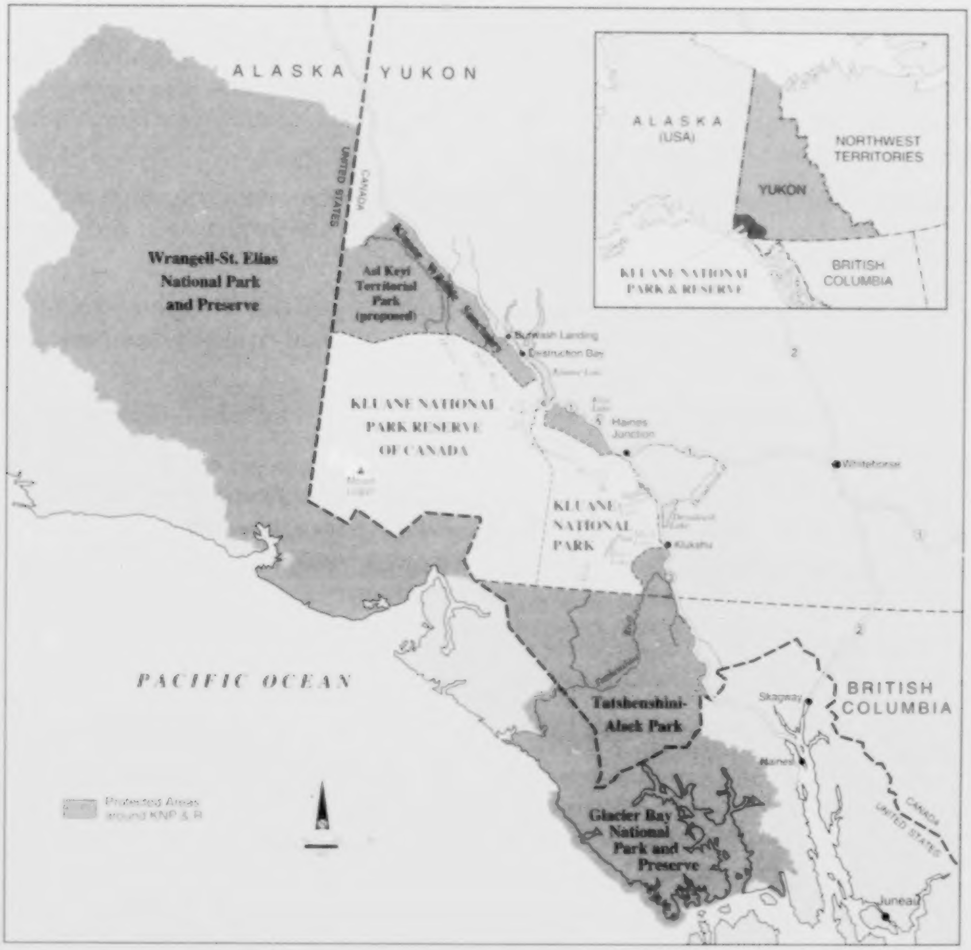
Cooperative Management

The Kluane National Park Management Board (the Board) was established in 1995 as a result of the *Champagne and Aishihik First Nations Final Agreement*. The Agreement identifies specific rights and responsibilities of the Board, CAFN and Parks Canada in the management of the park – a cooperative management regime based on shared responsibility for managing park resources.

The Board consists of four voting members—two CAFN nominees and two nominees of Canada—plus a non-voting member, the park superintendent. The Board is a way for the public to be involved in park management. The Board will continue to evolve and mature, and the *Kluane First Nation Final Agreement* provides for the expansion of the Board.

Champagne and Aishihik First Nations also has certain authority and responsibilities related to the management of the park that affect the rights and interests of Champagne and Aishihik First Nations members. For these reasons, the management of the park requires a sound and effective government-to-government relationship between Parks Canada and Champagne and Aishihik First Nations.

Map 1. Regional Setting


ALASKA
YUKON
UNITED STATES
CANADA
Wrangell-St. Elias National Park and Preserve
Asi Keyi Territorial Park (proposed)
Burwash Landing
Destruction Bay
KLUANE NATIONAL PARK RESERVE OF CANADA
Haines Junction
Whitehorse
KLUANE NATIONAL PARK
Klukshu
2
PACIFIC OCEAN
Tatshenshini-Alsek Park
BRITISH COLUMBIA
Skagway
Haines
Glacier Bay National Park and Preserve
Juneau
CANADA
UNITED STATES
Protected Areas around KNP & R
ALASKA (USA)
NORTHWEST TERRITORIES
YUKON
BRITISH COLUMBIA
KLUANE NATIONAL PARK & RESERVE

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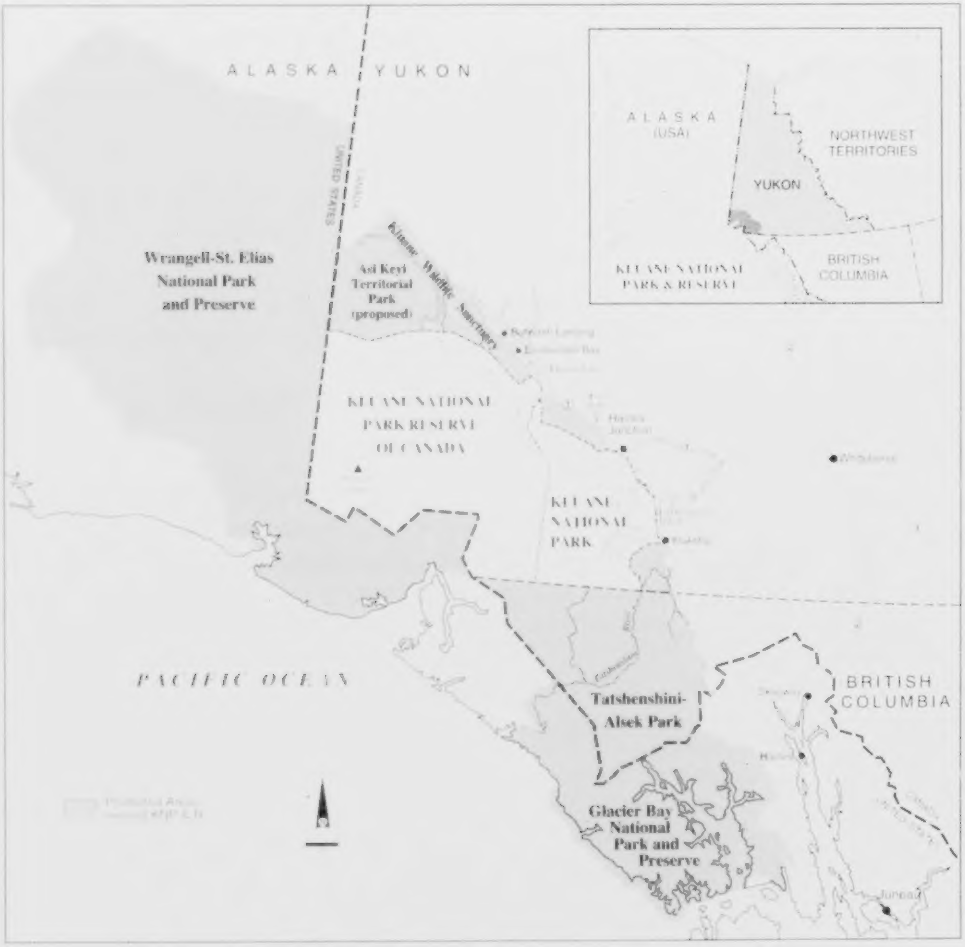
ALASKA
YUKON
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Wrangell-St. Elias National Park and Preserve
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Kluane Wildlife Sanctuary
Burwash Landing
Destruction Bay
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KLUANE NATIONAL PARK RESERVE OF CANADA
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Skagway
Haines
Juneau
ALASKA (USA)
YUKON
NORTHWEST TERRITORIES
BRITISH COLUMBIA
KLUANE NATIONAL PARK & RESERVE
Protected Areas

PARK VISION

The vision statement for Kluane National Park & Reserve describes the desired state of the park in 15 years. It is intended to provide a guide for park planning, management and operation.

- The park has at least the same high level of ecological integrity today as it had in 2002, based on the top priority of ecological integrity. Principles of precaution and adaptive management are exercised when there is potential for significant adverse effects on the ecosystem.
- Protection and maintenance of critical habitat and wildlife corridors serve to ensure healthy wildlife populations (e.g., grizzly bears, Dall's sheep, wolves, wolverines, mountain goats and golden eagles).
- Natural processes such as fire, insect outbreaks and floods govern change.
- The enduring cultural relationship between the Southern Tutchone people and the park contributes to the ecological integrity of the regional ecosystem.
- The park is managed on a regional ecosystem basis with the cooperation of Parks Canada, First Nations, Yukon government, local communities and other agencies and groups.
- Cultural resources are documented and interpreted through community-based and scientific research methods. These resources are appropriately managed and their meanings shared and understood.
- Parks Canada, the Champagne and Aishihik First Nations and Kluane First Nation share in the management of the park.
- Ongoing opportunities are provided to the public to contribute knowledge and ideas to park management and operations. The Kluane National Park Management Board acts as a conduit for local people to participate in park management.
- The local First Nation Final Agreements related to the park are being implemented, bringing economic and employment benefits to the Champagne and Aishihik First Nations and Kluane First Nation.
- Traditional knowledge and scientific knowledge are given full and fair consideration in the protection, management and operation of the park.
- Through interpretation and outreach programs, the public clearly understands the national significance of the park and supports actions that maintain and enhance ecological integrity.
- Local residents, park visitors and the people of Canada take an active role in protecting and sharing the park's natural and cultural heritage.
- Visitors enjoy a range of appropriate recreational activities that are based on experiencing and respecting the park's wilderness character and its natural and cultural heritage.
- The park plays an important role in the region's heritage tourism that is based on the park's wilderness and cultural values.
- The park is a positive contributor to the local economy, within the context of national park values.
- Part of a World Heritage Site, the park is an important symbol of Canada and of Canadian identity recognized by people from around the world.

A PLACE FOR NATURE

Ecological Integrity

A national park has ecological integrity if all the plants and animals that should be in the park still thrive there, people use the park and its surroundings in ways that respect the needs of those plants and animals and fires, insect outbreaks, weather and other natural processes are allowed to create natural habitat. In the past, Southern Tutchone people were an important part of the ecosystem.

Ecological integrity is measured in terms of ecosystem health, biological diversity, healthy populations of plants and animals, and the integration of people into the environment in ways that sustain both human quality of life and biological diversity.

A new five-year State of the Park Report and biennial national State of Protected Heritage Areas Report will report on the park's ecological integrity.

Environmental Stressors

The plan outlines real and perceived stressors on the park acting at park, regional and global levels. Some stressors may not be affecting the park now, but could be of serious concern in the future.

Global stressors include global climate change and the concentration of trans-boundary pollutants in our cold northern environments. At a regional level, park stressors include many activities just outside the park like forestry, agriculture, mining, fire suppression, hunting and snowmobile/ATV use. Regional stressors related to increasing development include loss of habitat, poor land use planning, deteriorating water quality and garbage issues. At the park level, stressors include the impacts of backcountry recreation, aircraft overflights and landings, sportfishing and pack animals. First Nations' loss of knowledge and relationship with traditional lands is also a local stressor.

The sections that follow, and the full-length management plan include many actions designed to respond to these environmental stressors.

Shared Regional Ecosystems

Kluane National Park & Reserve is inseparable from the land that surrounds it. Many of the park's environmental stressors are interconnected and relate to activities outside the park. KNP&R will continue to work with neighbouring governments, agencies and councils on common initiatives including the Alsek Moose Management Plan, enhanced geographic information systems, bear management, an updated cumulative effects assessment, mapping of ecologically sensitive areas, regional forest planning, aquatic ecosystem management and other programs and strategic initiatives.

Cultural Reintegration

The Southern Tutchone have a longstanding relationship with the land. For thousands of years they have been an integral part of the greater Kluane ecosystem and the park forms part of their cultural landscape. Aboriginal people were excluded from the park for much of the 20th century. The sustainable relationship the Southern Tutchone have had with the lands within Kluane National Park & Reserve should be re-established and fostered. KNP&R will work with local First Nations to establish programs that reconnect First Nation members with their cultural heritage in the park and incorporate their traditional knowledge and history into park management activities.

Ecological Monitoring

Ecological monitoring involves consistent measurements made over a long period of time to track changes in ecosystems. Ecological monitoring provides information about complex systems and the effects of disturbances, and it serves as an early warning mechanism to trigger management responses or further research. KNP&R is committed to working with partners to design and implement an ecological monitoring program for the park that will be both effective and sustainable over the long term. Parks Canada plans to participate in numerous monitoring programs, networks and long-term surveys in the greater Kluane region.

Vegetation

KNP&R's vegetation is typical of northern boreal forest. Approximately 18% of the park is vegetated and just 7% is forested. Many natural processes shape Kluane's vegetation communities. Additional knowledge of these processes and the role they play is required, most notably wildfire and insect and disease outbreaks. KNP&R will develop a park vegetation management plan, determine the history of spruce bark beetle outbreaks and work cooperatively on fire management. Work on preventing the introduction of exotic plant species also needs to be conducted.

Wildlife

Kluane National Park & Reserve is managed as a wilderness park. Grizzly bears, Dall's sheep and other species like wolves, wolverines and mountain goats symbolize the wilderness nature of the park. Healthy populations of these species provide a measure of the ecological integrity and wilderness character of the park. Trans-boundary wildlife species are subject to a variety of human influences because they are dependent on habitat inside and outside of the park. KNP&R is committed to mapping critical habitat and movement corridors; introducing management actions as required; implementing recommendations from the Grizzly Bear Project report; and continuing bear research and management activities.

Aquatic Ecosystems

Kluane National Park & Reserve's aquatic ecosystems range from clear high mountain lakes and streams to glacier-fed, silt-laden rivers, and low elevation lakes and wetlands. The Dezadeash River watershed supports the only population of Kokanee salmon in southwest Yukon, and the Kathleen Lake population is considered free of disease. Subsistence fishing levels in the park are currently very low. A 1995 creel census suggested that recreational harvest levels might be approaching the maximum sustainable yield for Kathleen Lake, and recreational fishing is considered one of the park's top five environmental stressors. KNP&R will develop objectives and strategies to maintain the ecological integrity of the park's aquatic ecosystems. Other initiatives include water quality monitoring, inventories and research on fish and amphibians.

Indicators of Ecological Integrity

Actions outlined in the management plan must be assessed to know if ecological integrity is being maintained. Both traditional and scientific knowledge will be considered in guiding the protection and management of the park. Detailed tables in the management plan specify indicators, targets and status for landscape processes, vegetation, aquatic ecosystems and wildlife. The table contains target thresholds which, if maintained, would suggest that the ecosystem is quite healthy. The various indicators will be regularly monitored and evaluated against the threshold targets. KNP&R will initiate management action where monitoring indicates ecological integrity is being impaired.

Communicating the Need for Ecological Integrity

Because human decisions and actions influence ecosystems, ecological integrity depends on people being informed. Goals, objectives and actions related to ecological integrity need the support of governments, local residents, visitors and all Canadians to succeed. Parks Canada plans to incorporate messages about ecological integrity in all public communications.

A PLACE WITH CULTURAL HERITAGE

Sheila Greer

Kluane National Park & Reserve's magnificent landscape has attracted the attention of humans for centuries. The earliest residents were drawn by subsistence opportunities, and later visitors were lured by mineral wealth or scientific interest. Modern day visitors come to the park for recreational and educational purposes. Helping people understand their place in nature is an important element of the national park experience.

Cultural resource management programs preserve and celebrate the human experience of the place that is now Kluane National Park & Reserve. They research how and why people came to this region and recognize the ways in which people have interacted with the land through time. Management of these resources is an important element of park stewardship.

A variety of archaeological and historical studies have been carried out in the park. Mining cabins have been documented, mountaineering history and highway construction researched and, more recently, significant aboriginal cultural sites have been studied. The park's aboriginal history is a long one, yet the legacy of that history is not well known or publicly communicated. Furthermore, it is not well understood by the local First Nation communities, for whom it has the most meaning.

Cultural resource work in the park during the life of this plan will emphasize collaboration with the local First Nations. The park's cultural resource management programs will operate in partnership with the First Nations' heritage programs. This collaborative approach will also strengthen heritage tourism in the region.

KNP&R will support programs that further the understanding of traditional Southern Tutchone relationships with the park, including community-based research projects that identify, inventory and research archaeological sites, cultural sites and trails. A priority project is to map traditional First Nation trails in the park. A park cultural resource management program will be developed that involves local First Nation governments. KNP&R will work with partners to develop protocols to govern new heritage finds and cultural education programs. Parks Canada will use aboriginal place names on signage and publications and develop a joint identity for the park with local First Nations.

KNP&R will continue to evaluate the significance of known cultural resources associated with gold mining, highway construction and mountaineering. Parks Canada also plans to complete an administrative history of the park.

A PLACE FOR PEOPLE

For nearly thirty years, Kluane National Park & Reserve has been valued as one of Canada's premier wilderness mountain parks. Images of KNP&R are featured prominently in promotional campaigns and the park attracts visitors from all over the world. The park is also important to local residents and other Yukoners as a place to make a living, tour with family, go adventuring and appreciate as a protected heritage area. Members of the Kluane and Champagne and Aishihik First Nations are re-establishing their longstanding relationship with traditional lands that lie within the park.

First Nation Traditional Uses

This management plan recognizes and respects Kluane First Nation's and Champagne and Aishihik First Nations' traditional use of the park. The *Champagne and Aishihik First Nations Final Agreement* empowers CAFN to renew traditional harvesting and trapping rights in the park, and they now cooperatively manage their subsistence and trapping activities within the park. Currently, harvest in the park is very low, and CAFN members have expressed a desire to protect and conserve plant and animal communities. Three No Harvest Zones were established as an interim measure in the *CAFN Final Agreement*. They will now be reviewed by CAFN, Parks Canada and the Management Board.

KNP&R plans to conduct furbearer research in the park and jointly develop a management and regulatory approach to First Nation harvest and trapping with CAFN and the Management Board. CAFN and Parks Canada will educate First Nation members and park staff about CAFN members' rights from the land claim related to the park.

Current and Future First Nation Opportunities

The *CAFN Final Agreement* specifies economic opportunities associated with the planning and management of Kluane National Park that should benefit the Champagne and Aishihik people. The benefits relate to employment and training, a share of commercial rafting opportunities and rights of first refusal for boat tours, visitor shuttle services and certain contracts. The Kluane First Nation has negotiated similar economic benefits. Existing third party activities in the park will continue to be respected and licensed businesses will be encouraged to partner with First Nation operations.

KNP&R will work with First Nation governments to ensure that contracting, employment and training opportunities with the park are available to local aboriginals. Parks Canada will work with CAFN in developing a sales outlet in the Haines Junction VRC that features First Nation arts and crafts, and cultural and tourism information. Priority may be put on research that leads to development of cultural tourism, such as aboriginal trail systems.

Heritage Tourism

Heritage tourism focuses on the experience of visiting a place with historic, cultural or natural significance. To be successful, heritage tourism must be sustainable. For KNP&R, sustainability means offering a range of opportunities that highlight the unique features and nature of the park without impairing its ecological integrity, damaging its cultural resources or diminishing its wilderness character.

To help achieve this goal, KNP&R will adopt the position to *attract park visitors to the right place, at the right time, in the right numbers and with the right expectations.* Visitor experience objectives have been established and messages about ecological integrity will be stressed. Parks Canada will work with others to ensure that visitors arrive with the right expectations. Learning travel–one of the fastest growing niche markets in the world–fits well with national parks and will be promoted by KNP&R.

Park Image

For twenty-five years, Kluane National Park & Reserve has successfully been promoted as a premier wilderness recreation destination. More recently there is a growing interest in First Nation cultural heritage and awareness of water-based and winter recreational experiences in the park. Building on these themes, the park will begin to reflect a more diverse range of opportunities than currently perceived by most visitors. The four themes are *Kluane Wilderness, Kluane Waterways, Kluane Culture* and *Kluane Winter.*

Kluane Region Tourism Plan

Parks Canada participated in the development of the revised Kluane Region Tourism Plan completed in 2000 by the Yukon government. Several potential products and services listed in the Tourism Plan fit well with the goals and objectives of the park management plan, such as interpretive hikes and excursions, First Nation experiences, quality local arts and crafts, area transport, seasonal wildlife viewing, backcountry skiing and river trips. Parks Canada will continue to work with Yukon Tourism and others to accomplish common goals and objectives and ensure that products, services and marketing efforts are compatible with park values and incorporate ecological integrity messages.

Interpretation and Outreach

Interpretation and outreach create an awareness and understanding of the natural and cultural values of Kluane National Park & Reserve. Ecological integrity and cultural resources cannot be maintained without the understanding and support of park users. KNP&R is rebuilding its commitment to interpretation and outreach as part of Parks Canada's renewal of heritage presentation. A mix of methods is used to reach the park's main audiences. High priority will be placed on redeveloping the Haines Junction Visitor Reception Centre.

The park's key messages have been updated to reflect national priorities, maintenance of ecological integrity and First Nation Final Agreements. The goal is for people to understand and appreciate these three major messages: *A System of Protected Areas, Ecological Integrity* and *A Sense of Place*. Five interpretive themes define *A Sense of Place*: An Ever-Changing Dynamic Environment; Experiencing Kluane's Riches; Loss of Use, Loss of History; A Tradition of Stewardship; and Significance Beyond Boundaries.

Parks Canada recognizes that members of the local communities are a key audience for helping to maintain ecological integrity. It is also important to recognize and respect the current priority for the local First Nations–that education and outreach efforts related to First Nation themes be directed largely to their memberships, rather than the wider public.

Parks Canada will work with CAFN and KFN to establish interpretive themes, displays, signage and programs with an emphasis on delivery by CAFN and KFN members. School and interpretive programs will be developed that target local residents. Parks Canada will work with commercial operators and tour bus drivers on interpretation certification and ways to encourage operators to deliver key park messages to their clients. KNP&R will enhance the park's website and coordinate roadside exhibits with the Yukon government Interpretive Signage Plan for the Alaska Highway west.

Visitor Services and Facilities

Parks Canada will develop an appropriate activities framework to evaluate proposed new activities against criteria for making decisions about the types and levels of activities in the park. These criteria will be compatible with the Ecological Integrity Protection Principles and consider impact on the environment, effects on culture and heritage, quality of experience, public safety, economic effects, equity and access, education and awareness, and level of use.

Parks Canada will continue to work with commercial operators to enhance their valuable role as mediums for park messages and role models for Leave No Trace principles. Parks Canada will continue to partner with others on tourism development, service and information delivery in the region, and "sense of arrival" to the park. Trailheads will be enhanced and private operators will be permitted to make canoes and kayaks available at select backcountry lakes.

The Haines Junction VRC (year-round) and Tachäl Dhäl (Sheep Mountain) VRC (seasonal) will continue to operate. KNP&R will update the Park User Fee Policy with public consultation. Parks Canada will regularly measure visitor use and satisfaction, the success of programs and products, and make changes as required.

Recreational Use Management

Recreational use management is the direction and guidance of visitors–their numbers, behaviour and activities. Effective recreational use management tools provide a way to protect the park's natural and cultural resources while allowing visitors to enjoy quality wilderness experiences and activities. Tools vary from signage and education to more active measures such as quotas, permits and closures.

Tourism Yukon

Management tools will be used to maintain and protect ecological integrity, solitude, natural quiet and pristine wilderness experiences. As local First Nations reconnect with the park, we must ensure that subsistence and recreational use activities are compatible. Several activities–including the use of personal motorized watercraft (seadoos), heli-skiing, heli-hiking, recreational use of ATVs, hang-gliding and extreme multi-day adventure races–are prohibited because they are not consistent with park values and experiences.

KNP&R will develop a quota and reservation system that initially focuses on the Slims, Cottonwood, Alsek, and Donjek/Duke visitor use corridors. New recreational activities will be evaluated to ensure they are consistent with the ecological integrity protection principles and do not impair key heritage resource values or visitor experiences. Llama use will continue to be permitted under tight restrictions.

Defining the Visitor Experience–Area Concepts

People come from all over the world to experience the park. KNP&R averages between 1,300 and 1,600 overnight backcountry visitors a year. Overnight use has increased 20% since 1990. The park's road accessible campground at Kathleen Lake receives an average of 1,780 parties per year. Day use visitation is increasing, including an estimated 1,500 visitors a year who enjoy a Kluane wilderness experience through aircraft over-flights.

Recreational use experiences are defined for seven geographic areas of the park. Ecological and visitor experience objectives are identified for each area (see the complete management plan), and all actions must be consistent with the area-specific objectives.

Mush and Bates Lakes/Alder Creek Valley and Cottonwood Trail

The Mush Lake Road will be maintained as a low grade, low volume road for four-wheel-drive vehicles. Up to 30 hp motors will be permitted on Mush Lake. Boat motors will be limited to 4-stroke engines (or equivalent) by the year 2012. Bates Lake will be for non-motorized use by visitors.

Kathleen Lake

Parks Canada will maintain the current range of services and facilities and continue to acquire private cottage holdings on Kathleen Lake as they become available.

Dezadeash-Alsek River Valleys

KNP&R will continue to manage the Alsek River as a premier wilderness rafting experience by allocating no more than 15 departures a month. Subject to certain conditions, a CAFN business will be permitted to offer a guided one-way motor supported float trip service on the Dezadeash River between Haines Junction and Serpentine Creek. Parks Canada will cooperate with others to maintain the Alsek River Road for seasonal four-wheel-drive access.

Ä'ą̈y Chù (Slims River) Valley

Parks Canada will designate campsites in the Ä'äy Chù Valley to help reduce negative human/bear interactions and evaluate other measures if needed to address bear issues.

Shär Ndü Chù/Duke and Dän Ƶhür Chù/Donjek River Valleys

KNP&R will use management tools to help maintain ecological integrity and wilderness experiences in these valleys. These include concentrating use on existing hiking routes and travel corridors, limiting the time a party may spend at the Donjek Glacier, and managing Big Horn Lake aircraft landings. Parks Canada will investigate whether an alternative wheeled landing site can be found in the immediate vicinity of Big Horn Lake.

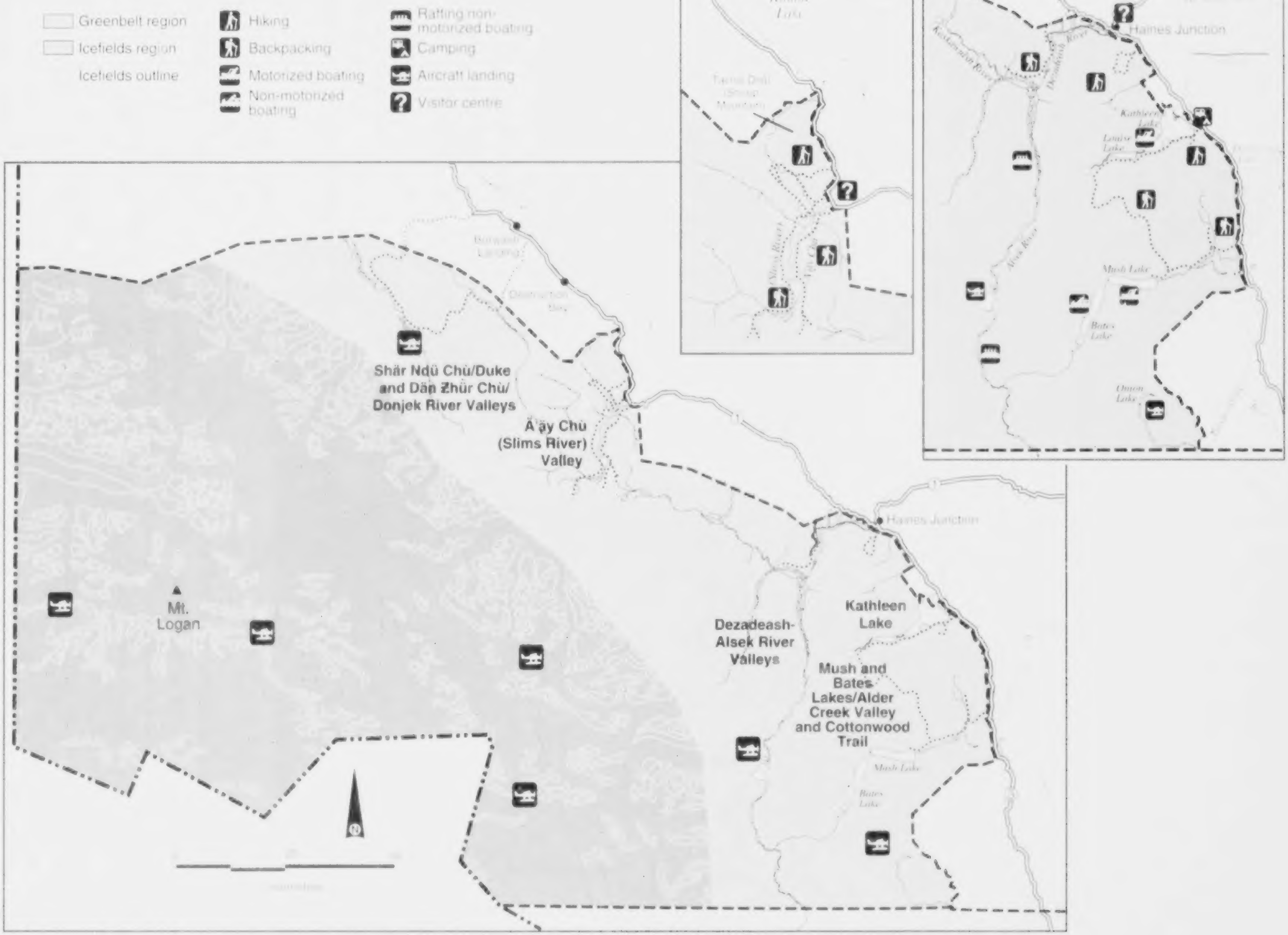
The Icefields

Kluane National Park & Reserve will work with aircraft operators to identify and designate one or two multiple operator day use landing sites in the Icefields, subject to guidelines that ensure this new activity is consistent with park management principles. Subject to several conditions, one additional seasonal tent camp will be permitted in the Icefields. KNP&R will work with the film industry to identify a pre-approved landing area in the Icefields for filming activities.

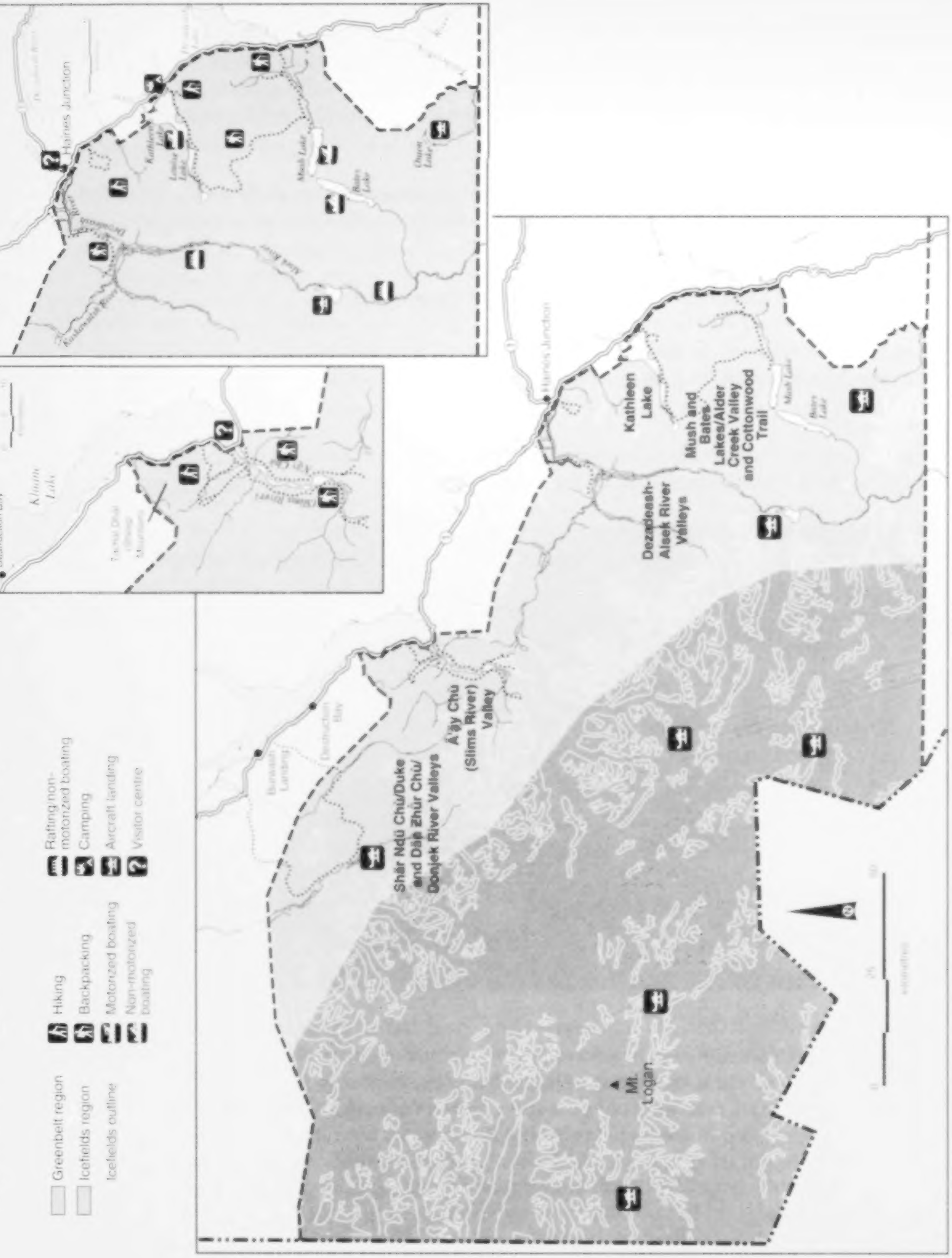
Highway Corridor

Parks Canada will collaborate with Yukon Tourism, CAFN and others to explore the concept of a parkway driving experience along the Haines Highway.

Map 2. Visitor Experience – Area Concepts


Greenbelt region
Icefields region
Icefields outline
Hiking
Backpacking
Motorized boating
Non-motorized boating
Rafting non-motorized boating
Camping
Aircraft landing
Visitor centre
Shär Ndü Chù/Duke and Däṉ Zhür Chù/ Donjek River Valleys
Ä'äy Chù (Slims River) Valley
Burwash Landing
Destruction Bay
Haines Junction
Kathleen Lake
Dezadeash-Alsek River Valleys
Mush and Bates Lakes/Alder Creek Valley and Cottonwood Trail
Mush Lake
Bates Lake
Mt. Logan
Destruction Bay
Kluane Lake
Tachal Dhäl (Sheep Mountain)
Slims River
Kaskawulsh River
Dezadeash River
Alsek River
Kathleen Lake
Louise Lake
Mush Lake
Bates Lake
Onion Lake
Haines Junction

Map 2. Visitor Experience – Area Concepts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Burwash Landing
Destruction Bay
Shär Ndü Chù/Duke and Däe Zhür Chù/Donjek River Valleys
Mt. Logan
0
25
50
kilometres

Winter Experience

KNP&R will encourage frontcountry cross-country skiing by track setting ski trails in the area and encourage backcountry ski touring by packing the Cottonwood Trail in the spring. Recreational use of snow mobiles in the park will not be permitted except along the abandoned pipeline corridor and on Kathleen Lake. One to two park-sanctioned snowmobile trips targeted to the region's residents may be held annually to provide a greater understanding and support of the park and its management. Seasonal winter tent camps may be introduced. Parks Canada also plans to develop guidelines for dogsled use in cooperation with guides.

Trails and Routes

About 200 km of trails and 400 km of recognized hiking routes are found in KNP&R. The trails range from easy twenty minute walks to more difficult five to six day hikes. Public consultation showed support for additional trail development if it could be done in a manner that does not impair the park's ecological integrity.

Parks Canada will focus potential trail development and any improvements on existing trails or routes (for example, investigate the economic and environmental feasibility of identifying an additional one or two overnight hiking routes off the Auriol, Shorty Creek or Alsek Valley trails). Existing hiking routes will be converted to trail status as increasing hiker traffic requires (e.g., convert Slims East to trail status). Hikers will be well informed in advance of the higher skill and ability levels required by KNP&R's hiking routes. Self-reliance will be a necessity.

Air Access

There are currently seven designated landing sites located within KNP&R in support of extended backcountry hiking, rafting and mountaineering trips. Four are located within the Icefields and three in the greenbelt area. Greenbelt landings are scheduled in advance and visitors can fly in or out, but not both. To reduce wildlife and visitor experience disturbances, aircraft access flights follow routes that are well above the ground surface or mountain slopes. Parks Canada will work with pilots to develop an aircraft operator code of ethics that aims to protect ecological integrity and wilderness visitor experiences. During management plan consultations, the public did not support day use landings in greenbelt areas. Day use aircraft landings outside the Icefields will not be permitted.

Visitor Use and Impact Monitoring

Since 1996, Kluane National Park & Reserve has carried out research to determine how recreational use has affected campsite impacts, opportunities for solitude and natural quiet, and wilderness experience satisfaction. Visitor use and impact monitoring research has enabled KNP&R to identify indicators and targets to determine if recreational use is within acceptable levels so as not to impair the wilderness experience people are seeking. Indicators and targets have been established for each of the major visitor use corridors in the park. Parks Canada will continue visitor use and impact monitoring research on a five-year cycle. Monitoring overnight recreational use of trails and routes will be one measure of the cumulative effects of recreational use and development.

Public Safety and Law Enforcement

In a mountainous national park like Kluane, public safety is a primary concern. Public safety must be a shared responsibility. Visitors must take precautions that reflect the risk involved in their chosen activity. Generally, more effort will be made to protect visitors in higher use areas. Visitors to wilderness areas will be expected to accept more responsibility for their safety. Parks Canada will work with partners to improve the park's public safety and law enforcement programs and maintain current Public Safety and Law Enforcement Plans. Warden skills in public safety will be enhanced and their presence within the park will be increased.

Partnerships and Public Involvement

Parks Canada will continue to foster and maintain partnerships with other agencies and organizations, including the US National Park Service (Wrangell-St. Elias National Park & Preserve and Glacier Bay National Park & Preserve) to further the efforts of the protected areas. This management plan will become the management tool for KNP&R as a World Heritage Site, and also for the Alsek River as a Canadian Heritage River. Parks Canada will consult with stakeholders and the public during implementation of the management plan and on major new initiatives. KNP&R will produce annual reports and the Management Board will coordinate an annual public forum on the implementation of the management plan.

IMPLEMENTATION PRIORITIES

A brief implementation priorities section is included in the management plan, outlining the priority actions that will be initiated during the first two years of plan implementation.

PARK ZONING AND WILDERNESS AREA DECLARATION

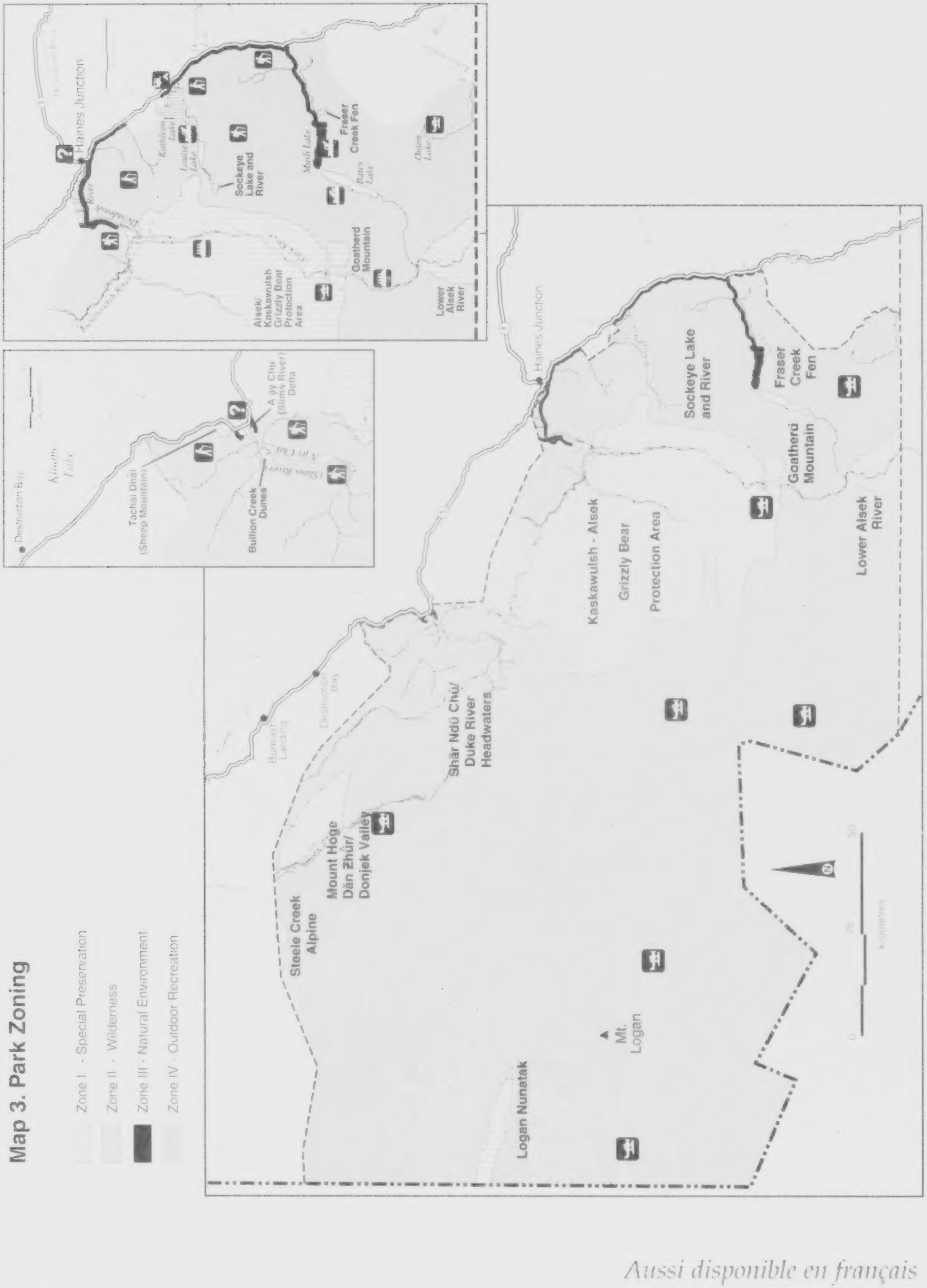
The national park zoning system classifies areas according to their need for protection and suitability for visitor activities. The zoning system does not preclude resource harvesting activities and subsistence use by the Champagne and Aishihik and Kluane First Nations.

Zone	Description	Changes from the 1990 Plan
Zone I	*Special Preservation* (14% of park) • supports unique, threatened or endangered features • among the best examples of a natural region	• upslope expansion of the Alsek/Kaskawulsh Grizzly Protection Area • changing the Alsek River water surface in the Protection Area from Zone III to Zone I
Zone II	*Wilderness* (85%) • large areas that well represent a natural region • conserved as wilderness • offers opportunities to experience park ecosystems with few, if any, services or facilities	• Zone IV to Zone II: - Alsek Day Use Area not developed • Zone III to Zone II: - Bates Lake (non-motorized use only) - Dezadeash River (Serpentine Creek to Kaskawulsh River) - Lowell Day Use Area not developed
Zone III	*Natural Environment* (< 1%) • visitors discover the park through recreational activities requiring a few rustic services and facilities • private vehicle access controlled	• Four park access roads now all Zone III • Dezadeash River (park boundary to Serpentine Creek) • Sheep Creek Day Use Area • Pipeline Right-of-Way (South of Haines Junction)
Zone IV	*Outdoor Recreation* (< 1%) • a range of ways to experience the park's heritage • essential services and facilities	• Kathleen Lake; Kathleen Lake Day Use Area (existing) • Tachäl Dhäl (Sheep Mountain) VRC (new)

Wilderness Area Declaration

Park zoning is a planning tool, whereas wilderness declaration is a legislative tool. Zoning can be amended every five years through the management planning review process. Wilderness declaration regulations help ensure a high level of ecological integrity and guarantee the highest degree of assurance for long-term protection for the park.

Over 95% of the park is recommended for wilderness declaration. Wilderness area declaration will generally be consistent with Zone II and Zone I areas of the park. Within one year of the tabling of the management plan, following public review, Zone II and Zone I areas identified in this plan will be declared wilderness.



Map 3. Park Zoning

Zone I - Special Preservation
Zone II - Wilderness
Zone III - Natural Environment
Zone IV - Outdoor Recreation
Logan Nunatak
Mt. Logan
Steele Creek Alpine
Mount Hoge Dän Zhùr/ Donjek Valley
Burwash Landing
Destruction Bay
Shär Ndü Chù/ Duke River Headwaters
Kaskawulsh - Alsek Grizzly Bear Protection Area
Lower Alsek River
Goatherd Mountain
Sockeye Lake and River
Fraser Creek Fen
Haines Junction
Kilometres
0
25
50
Destruction Bay
Kluane Lake
Tachal Dhäl (Sheep Mountain)
Bullion Creek Dunes
Slims River
A ąy Chù (Slims River) Delta
Dezadeash River
Kathleen Lake
Louise Lake
Mush Lake
Bates Lake
Onion Lake
Alsek/ Kaskawulsh Grizzly Bear Protection Area
Lower Alsek River

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